

<213> Homo sapiens

<400> 4492

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Lys Thr Asp Asn Arg Pro Glu Lys Ser Lys Cys Lys Pro Leu Trp Gly
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Lys Val Phe Tyr Leu Asp Leu Pro Ser Val Thr Ile Ser Glu Lys Leu
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Gln Lys Asp Ile Lys Asp Leu Gly Gly Arg Val Glu Glu Phe Leu Ser
 65           70           75           80
Lys Asp Ile Ser Tyr Leu Ile Ser Asn Lys Lys Glu Ala Lys Phe Ala
 85           90           95
Gln Thr Leu Gly Arg Ile Ser Pro Val Pro Ser Pro Glu Ser Ala Tyr
 100          105          110
Thr Ala Glu Thr Thr Ser Pro His Pro Ser His Asp Gly Ser Ser Phe
 115          120          125
Lys Ser Pro Asp Thr Val Cys Leu Ser Arg Gly Lys Leu Leu Val Glu
 130          135          140
Lys Ala Ile Lys Asp His Asp Phe Ile Pro Ser Asn Ser Ile Leu Ser
 145          150          155          160
Asn Ala Leu Ser Trp Gly Val Lys Ile Leu His Ile Asp Asp Ile Arg
 165          170          175
Tyr Tyr Ile Glu Gln Lys Lys Lys Glu Leu Tyr Leu Leu Lys Lys Ser
 180          185          190
Ser Thr Ser Val Arg Asp Gly Gly Lys Arg Val Gly Ser Gly Ala Gln
 195          200          205
Lys Thr Arg Thr Gly Arg Leu Lys Lys Pro Phe Val Lys Val Glu Asp
 210          215          220
Met Ser Gln Leu Tyr Arg Pro Phe Tyr Leu Gln Leu Thr Asn Met Pro
 225          230          235          240
Phe Ile Asn Tyr Ser Ile Gln Lys Pro Cys Ser Pro Phe Asp Val Asp
 245          250          255
Lys Pro Ser Ser Met Gln Lys Gln Thr Gln Val Lys Leu Arg Ile Gln
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Glu Lys Lys Lys Lys Gly Tyr Cys Glu Cys Cys Leu Gln Lys Tyr Glu
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Asp Leu Glu Thr His Leu Leu Ser Glu Gln His Arg Asn Phe Ala Gln
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 325          330          335
Asp Phe Val Glu Tyr Glu Lys Asp Thr Pro Lys Lys Lys Arg Ile Lys
 340          345          350
Tyr Ser Val Gly Ser Leu Ser Pro Val Ser Ala Ser Val Leu Lys Lys
 355          360          365
Thr Glu Gln Lys Glu Lys Val Glu Leu Gln His Ile Ser Gln Lys Asp
 370          375          380
Cys Gln Glu Asp Asp Thr Thr Val Lys Glu Gln Asn Phe Leu Tyr Lys
 385          390          395          400
Glu Thr Gln Glu Thr Glu Lys Lys Leu Leu Phe Ile Ser Glu Pro Ile

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405 410 415
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 Ser Glu His Thr Leu Ser Glu Asn Asp Leu Glu Glu Leu Arg Val Asp
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 His Tyr Lys Cys Asn Ile Gln Ala Ser Val His Val Ser Asp Phe Ser
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 Val Gln Ala Lys Ala Pro Phe His Thr Pro Pro Glu Glu Pro Asn Glu
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 Cys Asp Phe Lys Asn Met Asp Ser Leu Pro Ser Gly Lys Ile His Arg
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 Arg Ile Cys Ser Ser Pro Val Gln Ser Leu Leu Asp Leu Phe Gln Thr
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 Ser Glu Glu Lys Ser Glu Phe Leu Gly Phe Thr Ser Tyr Thr Glu Lys
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<210> 4493

<211> 1829

<212> DNA

<213> Homo sapiens

<400> 4493

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<210> 4494

<211> 111

<212> PRT

<213> Homo sapiens

<400> 4494

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 20           25           30
Asp Leu Ile Ser Glu Glu Thr Asp Pro Lys Ile Ile Thr Ala Gly Asn
 35           40           45
Leu Val His Leu Ala Leu Arg Phe Lys Cys Asn Gln Asn Cys Pro Gln
 50           55           60
Gly Pro Ala Ile Lys Ala Leu Ser Leu Ser Thr Phe Trp Tyr Leu Val
 65           70           75           80
Arg Glu Leu Phe Thr Val Arg Lys Cys Gly Lys Ile Ala Leu Cys Val
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<210> 4495

<211> 3623

<212> DNA

<213> Homo sapiens

<400> 4495

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<210> 4496

<211> 560

<212> PRT

<213> Homo sapiens

<400> 4496

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			20					25					30		
Leu	Asp	Pro	Asp	Trp	Thr	Pro	Asp	Gln	Tyr	Asp	Tyr	Ser	Tyr	Glu	Asp
		35				40					45				
Tyr	Asn	Gln	Glu	Glu	Asn	Thr	Ser	Ser	Thr	Leu	Thr	His	Ala	Glu	Asn
	50				55					60					
Pro	Asp	Trp	Tyr	Tyr	Thr	Glu	Asp	Gln	Ala	Asp	Pro	Cys	Gln	Pro	Asn
65					70				75					80	
Pro	Cys	Glu	His	Gly	Gly	Asp	Cys	Leu	Val	His	Gly	Ser	Thr	Phe	Thr

85										90					95						
Cys	Ser	Cys	Leu	Ala	Pro	Phe	Ser	Gly	Asn	Lys	Cys	Gln	Lys	Val	Gln						
			100					105					110								
Asn	Thr	Cys	Lys	Asp	Asn	Pro	Cys	Gly	Arg	Gly	Gln	Cys	Leu	Ile	Thr						
		115					120					125									
Gln	Ser	Pro	Pro	Tyr	Tyr	Arg	Cys	Val	Cys	Lys	His	Pro	Tyr	Thr	Gly						
	130					135					140										
Pro	Ser	Cys	Ser	Gln	Val	Val	Pro	Val	Cys	Arg	Pro	Asn	Pro	Cys	Gln						
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Asn	Gly	Ala	Thr	Cys	Ser	Arg	His	Lys	Arg	Arg	Ser	Lys	Phe	Thr	Cys						
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Ala	Cys	Pro	Asp	Gln	Phe	Lys	Gly	Lys	Phe	Cys	Glu	Ile	Gly	Ser	Asp						
			180					185					190								
Asp	Cys	Tyr	Val	Gly	Asp	Gly	Tyr	Ser	Tyr	Arg	Gly	Lys	Met	Asn	Arg						
		195					200					205									
Thr	Val	Asn	Gln	His	Ala	Cys	Leu	Tyr	Trp	Asn	Ser	His	Leu	Leu	Leu						
	210					215						220									
Gln	Glu	Asn	Tyr	Asn	Met	Phe	Met	Glu	Asp	Ala	Glu	Thr	His	Gly	Ile						
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Val	Ser	Ala	Cys	Ser	Ala	Gln	Asp	Val	Ala	Tyr	Pro	Glu	Glu	Ser	Pro						
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Glu	Ile	Ala	Glu	Arg	Lys	Ile	Lys	Arg	Ile	Tyr	Gly	Gly	Phe	Lys	Ser						
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Thr	Ala	Gly	Lys	His	Pro	Trp	Gln	Ala	Ser	Leu	Gln	Ser	Ser	Leu	Pro						
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Leu	Thr	Ile	Ser	Met	Pro	Gln	Gly	His	Phe	Cys	Gly	Gly	Ala	Leu	Ile						
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His	Pro	Cys	Trp	Val	Leu	Thr	Ala	Ala	His	Cys	Thr	Asp	Ile	Lys	Thr						
		355																			

	515		520		525										
Trp	Gly	Leu	Glu	Cys	Gly	Lys	Arg	Pro	Gly	Val	Tyr	Thr	Gln	Val	Thr
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Lys	Phe	Leu	Asn	Trp	Ile	Lys	Ala	Thr	Ile	Lys	Ser	Glu	Ser	Gly	Phe
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<210> 4497

<211> 840

<212> DNA

<213> Homo sapiens

<400> 4497

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<210> 4498

<211> 280

<212> PRT

<213> Homo sapiens

<400> 4498

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			20					25				30			
Pro	Lys	Ala	Ser	Thr	Thr	Ser	Asp	Gly	Asp	Glu	Ser	Pro	Pro	Ser	Ser
		35				40				45					
Pro	Gly	Asn	Pro	Val	Gln	Gly	Gln	Cys	Gly	Glu	Glu	Glu	Asp	Ser	Leu

50	55	60
Asp Leu Ser Ser Thr Phe Val Ser Leu Ala Leu Arg Lys Val Gly Asp		
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Trp Pro Leu Ser Ala Arg Arg Glu Lys Gly Leu Asn Gln Glu Pro Gln		80
	85	90
Gly Arg Gly Leu Ala Leu Gln Lys Met Gly Gln Glu Glu Glu Ser Pro		95
	100	105
Pro Arg Glu Glu Arg Pro Gln Gln Ser Pro Lys Ala Ser Pro Gly Leu		110
	115	120
Leu Ala Ala Ala Leu Gln Gln Ser Gln Glu Leu Ala Lys Leu Gly Thr		125
	130	135
Ser Phe Ala Gln Asn Gly Phe Tyr His Glu Ala Val Val Leu Phe Thr		140
145	150	155
Gln Ala Leu Lys Leu Asn Pro Gln Asp His Arg Leu Phe Gly Asn Arg		160
	165	170
Ser Phe Cys His Glu Arg Leu Gly Gln Pro Ala Trp Ala Leu Ala Asp		175
	180	185
Ala Gln Val Ala Leu Thr Leu Arg Pro Gly Trp Pro Arg Gly Leu Phe		190
	195	200
Arg Leu Gly Lys Ala Leu Met Gly Leu Gln Arg Phe Arg Glu Ala Ala		205
	210	215
Ala Val Phe Gln Glu Thr Leu Arg Gly Gly Ser Gln Pro Asp Ala Ala		220
225	230	235
Arg Glu Leu Arg Ser Cys Leu Leu His Leu Thr Leu Gln Gly Gln Arg		240
	245	250
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<210> 4499

<211> 562

<212> DNA

<213> Homo sapiens

<400> 4499

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<210> 4500

<211> 91

<212> PRT

<213> Homo sapiens

<400> 4500

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			20					25					30		
His	Gly	Leu	Ser	Pro	Leu	Asn	Val	Ile	Ala	Glu	Asp	Gly	Thr	Met	Thr
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Glu	Lys	Ile	Met	Ser	Val	Leu	Ser	Glu	Arg	Gly	Leu	Phe	Arg	Gly	Leu
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<211> 1866

<212> DNA

<213> Homo sapiens

<400> 4501

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<210> 4502

<211> 267

<212> PRT

<213> Homo sapiens

<400> 4502

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<212> DNA
<213> Homo sapiens
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 1983

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<211> 250

<212> PRT

<213> Homo sapiens

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 Lys Lys Asp Asn Val Ala Gly Val Thr Leu Pro Val Phe Glu His Tyr
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 195 200 205
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<210> 4505

<211> 379

<212> DNA

<213> Homo sapiens

<400> 4505

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<210> 4506

<211> 121

<212> PRT

<213> Homo sapiens

<400> 4506

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Arg Arg Gln Trp Trp Leu Trp Leu Ser Ser Leu Ser Asn Gln Ile His
      35             40             45
Pro Thr Pro Ser Ala Gln Gly Gln Ala Ala Leu Arg Gln Thr Cys Pro
      50             55             60
His Leu Arg Glu Ser Gly Pro Leu Ser Val Arg His Val Ala Leu Leu
65             70             75             80
Ala Leu Glu Thr Ala Ser His Pro Ser Gly Pro His Thr Asn Gln Ala
      85             90             95
Pro Ser Pro Ala Thr Ser Pro Lys Cys Pro Ser Glu Pro Ala Thr Pro
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<210> 4507

<211> 3664

<212> DNA

<213> Homo sapiens

<400> 4507

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<211> 172

<212> PRT

<213> Homo sapiens

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<210> 4509

<211> 11680

<212> DNA

<213> Homo sapiens

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Ser	Glu	Thr	Asp	Gln	Glu	Asn	Glu	Arg	Glu	Gln	Ser	Pro	Glu	Lys	Pro
	435					440						445			
Arg	Ser	Cys	Asn	Lys	Leu	Ser	Arg	Glu	Lys	Ala	Asp	Lys	Glu	Gly	Ile
	450					455					460				
Ala	Lys	Asn	Arg	Leu	Glu	Leu	Met	Pro	Cys	Val	Val	Leu	Thr	Arg	Val
465					470					475					480
Lys	Glu	Lys	Glu	Gly	Lys	Val	Ile	Asp	His	Thr	Pro	Val	Glu	Lys	Leu
			485					490					495		
Lys	Ala	Lys	Leu	Asp	Asn	Asp	Thr	Val	Lys	Ser	Ser	Ala	Leu	Asp	Gln

3700

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Ala Gly Arg Phe Asp Val Ser Phe Pro Asn Ser Ile Ile Lys Arg Asp		
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Ser Leu Arg Lys Arg Ser Val Arg Asp Leu Glu Pro Gly Glu Val Pro		960
	965	970
Ser Asp Ser Asp Glu Asp Gly Glu His Lys Ser His Ser Pro Arg Ala		975
	980	985
Ser Ala Leu Tyr Glu Ser Ser Arg Leu Ser Phe Leu Leu Arg Asp Arg		990
	995	1000
Glu Asp Lys Leu Arg Glu Arg Asp Glu Arg Leu Ser Ser Ser Leu Glu		1005
	1010	1015
Arg Asn Lys Phe Tyr Ser Phe Ala Leu Asp Lys Thr Ile Thr Pro Asp		1020
1025	1030	1035
Thr Lys Ala Leu Leu Glu Arg Ala Lys Ser Leu Ser Ser Ser Arg Glu		1040
	1045	1050
Glu Asn Trp Ser Phe Leu Asp Trp Asp Ser Arg Phe Ala Asn Phe Arg		1055
	1060	1065
Asn Asn Lys Asp Lys Glu Lys Val Asp Ser Ala Pro Arg Pro Ile Pro		1070
	1075	1080
Ser Trp Tyr Met Lys Lys Lys Lys Ile Arg Thr Asp Ser Glu Gly Lys		1085
	1090	1095
Met Asp Asp Lys Lys Glu Asp His Lys Glu Glu Glu Gln Glu Arg Gln		1100
1105	1110	1115
Glu Leu Phe Ala Ser Arg Phe Leu His Ser Ser Ile Phe Glu Gln Asp		1120
	1125	1130
Ser Lys Arg Leu Gln His Leu Glu Arg Lys Glu Glu Asp Ser Asp Phe		1135
	1140	1145
Ile Ser Gly Arg Ile Tyr Gly Lys Gln Thr Ser Glu Gly Ala Asn Ser		1150
	1155	1160
Thr Thr Asp Ser Ile Gln Glu Pro Val Val Leu Phe His Ser Arg Phe		1165
	1170	1175
Met Glu Leu Thr Arg Met Gln Gln Lys Lys Lys Glu Lys Asp Gln Lys		1180
1185	1190	1195
Pro Lys Glu Val Glu Lys Gln Glu Asp Thr Glu Asn His Pro Lys Thr		1200
	1205	1210
Pro Glu Ser Ala Pro Glu Asn Lys Asp Ser Glu Leu Lys Thr Pro Pro		1215
	1220	1225
Ser Val Gly Pro Pro Ser Val Thr Val Val Thr Leu Glu Ser Ala Pro		1230
	1235	1240
Ser Ala Leu Glu Lys Thr Thr Gly Asp Lys Thr Val Glu Ala Pro Leu		1245
	1250	1255
Val Thr Glu Glu Lys Thr Val Glu Pro Ala Thr Val Ser Glu Glu Ala		1260
1265	1270	1275
Lys Pro Ala Ser Glu Pro Ala Pro Ala Pro Val Glu Gln Leu Glu Gln		1280
	1285	1290
Val Asp Leu Pro Pro Gly Ala Asp Pro Asp Lys Glu Ala Ala Met Met		1295
	1300	1305
Pro Ala Gly Val Glu Glu Gly Ser Ser Gly Asp Gln Pro Pro Tyr Leu		1310
	1315	1320
Asp Ala Lys Pro Pro Thr Pro Gly Ala Ser Phe Ser Gln Ala Glu Ser		1325
	1330	1335
Asn Val Asp Pro Glu Pro Asp Ser Thr Gln Pro Leu Ser Lys Pro Ala		1340
1345	1350	1355
Gln Lys Ser Glu Glu Ala Asn Glu Pro Lys Ala Glu Lys Pro Asp Ala		1360

1365 1370 1375
 Thr Ala Asp Ala Glu Pro Asp Ala Asn Gln Lys Ala Glu Ala Ala Pro
 1380 1385 1390
 Glu Ser Gln Pro Pro Ala Ser Glu Asp Leu Glu Val Asp Pro Pro Val
 1395 1400 1405
 Ala Ala Lys Asp Lys Lys Pro Asn Lys Ser Lys Arg Ser Lys Thr Pro
 1410 1415 1420
 Val Gln Ala Ala Ala Val Ser Ile Val Glu Lys Pro Val Thr Arg Lys
 1425 1430 1435 1440
 Ser Glu Arg Ile Asp Arg Glu Lys Leu Lys Arg Ser Asn Ser Pro Arg
 1445 1450 1455
 Gly Glu Ala Gln Lys Leu Leu Glu Leu Lys Met Glu Ala Glu Lys Ile
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 Thr Arg Thr Ala Ser Lys Asn Ser Ala Ala Asp Leu Glu His Pro Glu
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 Pro Ser Leu Pro Leu Ser Arg Thr Arg Arg Arg Asn Val Arg Ser Val
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 Glu Ala Ala Ala Val Pro Thr Thr Pro Arg Arg Gly Arg Pro Pro Lys
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 Thr Arg Arg Arg Ala Asp Glu Glu Glu Asn Glu Ala Lys Glu Pro
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 1570 1575 1580
 Lys Thr Ala Ala Gly Gly Gly Pro Gln Gly Lys Lys Gly Lys Asn Glu
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 Pro Lys Val Asp Ala Thr Arg Pro Glu Ala Thr Thr Glu Val Gly Pro
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 Gln Ile Gly Val Lys Glu Ser Ser Met Glu Pro Lys Ala Ala Glu Glu
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 Glu Ala Gly Ser Glu Gln Lys Arg Asp Arg Lys Asp Ala Gly Thr Asp
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 Lys Asn Pro Pro Glu Thr Ala Pro Val Glu Val Val Glu Lys Lys Pro
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 Ala Pro Glu Lys Asn Ser Lys Ser Lys Arg Gly Arg Ser Arg Asn Ser
 1665 1670 1675 1680
 Arg Leu Ala Val Asp Lys Ser Ala Ser Leu Lys Asn Val Asp Ala Ala
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 1715 1720 1725
 Gly Leu Ser Ser Gln Leu Lys Ser Asp Pro Val Asp Pro Asp Lys Glu
 1730 1735 1740
 Pro Glu Lys Glu Asp Val Ser Ala Ser Gly Pro Ser Pro Glu Ala Thr
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 Gln Leu Ala Lys Gln Met Glu Leu Glu Gln Ala Val Glu His Ile Ala
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 Lys Leu Ala Glu Ala Ser Ala Ser Ala Ala Tyr Lys Ala Asp Ala Pro
 1780 1785 1790
 Glu Gly Leu Ala Pro Glu Asp Arg Asp Lys Pro Ala His Gln Ala Ser

1795	1800	1805
Glu Thr Glu Leu Ala Ala Ala Ile Gly Ser Ile Ile Asn Asp Ile Ser		
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Gly Glu Pro Glu Asn Phe Pro Ala Pro Pro Pro Tyr Pro Gly Glu Ser		
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Gln Thr Asp Leu Gln Pro Pro Ala Gly Ala Gln Ala Leu Gln Pro Ser		
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Glu Glu Gly Met Glu Thr Asp Glu Ala Val Ser Gly Ile Leu Glu Thr		
1860	1865	1870
Glu Ala Ala Thr Glu Ser Ser Arg Pro Pro Val Asn Ala Pro Asp Pro		
1875	1880	1885
Ser Ala Gly Pro Thr Asp Thr Lys Glu Ala Arg Gly Asn Ser Ser Glu		
1890	1895	1900
Thr Ser His Ser Val Pro Glu Ala Lys Gly Ser Lys Glu Val Glu Val		
1905	1910	1915
Thr Leu Val Arg Lys Asp Lys Gly Arg Gln Lys Thr Thr Arg Ser Arg		
1925	1930	1935
Arg Lys Arg Asn Thr Asn Lys Lys Val Val Ala Pro Val Glu Ser His		
1940	1945	1950
Val Pro Glu Ser Asn Gln Ala Gln Gly Glu Ser Pro Ala Ala Asn Glu		
1955	1960	1965
Gly Thr Thr Val Gln His Pro Glu Ala Pro Gln Glu Glu Lys Gln Ser		
1970	1975	1980
Glu Lys Pro His Ser Thr Pro Pro Gln Ser Cys Thr Ser Asp Leu Ser		
1985	1990	1995
Lys Ile Pro Ser Thr Glu Asn Ser Ser Gln Glu Ile Ser Val Glu Glu		
2005	2010	2015
Arg Thr Pro Thr Lys Ala Ser Val Pro Pro Asp Leu Pro Pro Pro Pro		
2020	2025	2030
Gln Pro Ala Pro Val Asp Glu Glu Pro Gln Ala Arg Phe Arg Val His		
2035	2040	2045
Ser Ile Ile Glu Ser Asp Pro Val Thr Pro Pro Ser Asp Pro Ser Ile		
2050	2055	2060
Pro Ile Pro Thr Leu Pro Ser Val Thr Ala Ala Lys Leu Ser Pro Pro		
2065	2070	2075
Val Ala Ser Gly Gly Ile Pro His Gln Ser Pro Pro Thr Lys Val Thr		
2085	2090	2095
Glu Trp Ile Thr Arg Gln Glu Glu Pro Arg Ala Gln Ser Thr Pro Ser		
2100	2105	2110
Pro Ala Leu Pro Pro Asp Thr Lys Ala Ser Asp Val Asp Thr Ser Ser		
2115	2120	2125
Ser Thr Leu Arg Lys Ile Leu Met Asp Pro Lys Tyr Val Ser Ala Thr		
2130	2135	2140
Ser Val Thr Ser Thr Ser Val Thr Thr Ala Ile Ala Glu Pro Val Ser		
2145	2150	2155
Ala Ala Pro Cys Leu His Glu Ala Pro Pro Pro Val Asp Ser Lys		
2165	2170	2175
Lys Pro Leu Glu Glu Lys Thr Ala Pro Pro Val Thr Asn Asn Ser Glu		
2180	2185	2190
Ile Gln Ala Ser Glu Val Leu Val Ala Ala Asp Lys Glu Lys Val Ala		
2195	2200	2205
Pro Val Ile Ala Pro Lys Ile Thr Ser Val Ile Ser Arg Met Pro Val		
2210	2215	2220
Ser Ile Asp Leu Glu Asn Ser Gln Lys Ile Thr Leu Ala Lys Pro Ala		

2225	2230								2235				2240			
Pro	Gln	Thr	Leu	Thr	Gly	Leu	Val	Ser	Ala	Leu	Thr	Gly	Leu	Val	Asn	
				2245				2250				2255				
Val	Ser	Leu	Val	Pro	Val	Asn	Ala	Leu	Lys	Gly	Pro	Val	Lys	Gly	Ser	
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Val	Thr	Thr	Leu	Lys	Ser	Leu	Val	Ser	Thr	Pro	Ala	Gly	Pro	Val	Asn	
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Val	Leu	Lys	Gly	Pro	Val	Asn	Val	Leu	Thr	Gly	Pro	Val	Asn	Val	Leu	
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Thr	Thr	Pro	Val	Asn	Ala	Thr	Val	Gly	Thr	Val	Asn	Ala	Ala	Pro	Gly	
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Thr	Val	Asn	Ala	Ala	Ala	Ser	Ala	Val	Asn	Ala	Thr	Ala	Ser	Ala	Val	
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Thr	Val	Thr	Ala	Gly	Ala	Val	Thr	Ala	Ala	Ser	Gly	Gly	Val	Thr	Ala	
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Thr	Thr	Gly	Thr	Val	Thr	Met	Ala	Gly	Ala	Val	Ile	Ala	Pro	Ser	Thr	
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Lys	Cys	Lys	Gln	Arg	Ala	Ser	Ala	Asn	Glu	Asn	Ser	Arg	Phe	His	Pro	
2370				2375				2380								
Gly	Ser	Met	Pro	Val	Ile	Asp	Asp	Arg	Pro	Ala	Asp	Ala	Gly	Ser	Gly	
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Ala	Gly	Leu	Arg	Val	Asn	Thr	Ser	Glu	Gly	Val	Val	Leu	Leu	Ser	Tyr	
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Ser	Gly	Gln	Lys	Thr	Glu	Gly	Pro	Gln	Arg	Ile	Ser	Ala	Lys	Ile	Ser	
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Gln	Ile	Pro	Pro	Ala	Ser	Ala	Met	Asp	Ile	Glu	Phe	Gln	Gln	Ser	Val	
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Ser	Lys	Ser	Gln	Val	Lys	Pro	Asp	Ser	Val	Thr	Ala	Ser	Gln	Pro	Pro	
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Ser	Lys	Gly	Pro	Gln	Ala	Pro	Ala	Gly	Tyr	Ala	Asn	Val	Ala	Thr	His	
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Ser	Thr	Leu	Val	Leu	Thr	Ala	Gln	Thr	Tyr	Asn	Ala	Ser	Pro	Val	Ile	
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Ser	Ser	Val	Lys	Ala	Asp	Arg	Pro	Ser	Leu	Glu	Lys	Pro	Glu	Pro	Ile	
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His	Leu	Ser	Val	Ser	Thr	Pro	Val	Thr	Gln	Gly	Gly	Thr	Val	Lys	Val	
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Leu	Thr	Gln	Gly	Ile	Asn	Thr	Pro	Pro	Val	Leu	Val	His	Asn	Gln	Leu	
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Val	Leu	Thr	Pro	Ser	Ile	Val	Thr	Thr	Asn	Lys	Lys	Leu	Ala	Asp	Pro	
2545				2550				2555				2560				
Val	Thr	Leu	Lys	Ile	Glu	Thr	Lys	Val	Leu	Gln	Pro	Ala	Asn	Leu	Gly	
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Ser	Thr	Leu	Thr	Pro	His	His	Pro	Pro	Ala	Leu	Pro	Ser	Lys	Leu	Pro	
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Thr	Glu	Val	Asn	His	Val	Pro	Ser	Gly	Pro	Ser	Ile	Pro	Ala	Asp	Arg	
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Pro	Ser	Gly	Pro	Gly	Pro	Ser	Ser	Phe	Pro	Arg	Ala	Ser	His	Pro	Ser	
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Ser	Thr	Ala	Ser	Thr	Ala	Leu	Ser	Thr	Asn	Ala	Thr	Val	Met	Leu	Ala	
				2645				2650				2655				
Ala	Gly	Ile	Pro	Val	Pro	Gln	Phe	Ile	Ser	Ser	Ile	His	Pro			

	2660		2665		2670
Ser Val Ile Met Pro Pro His Ser Ile Thr Gln Thr Val Ser Leu Ser					
	2675		2680		2685
His Leu Ser Gln Gly Glu Val Arg Met Asn Thr Pro Thr Leu Pro Ser					
	2690		2695		2700
Ile Thr Tyr Ser Ile Arg Pro Glu Ala Leu His Ser Pro Arg Ala Pro					
2705		2710		2715	2720
Leu Gln Pro Gln Gln Ile Glu Val Arg Ala Pro Gln Arg Ala Ser Thr					
	2725		2730		2735
Pro Gln Pro Ala Pro Ala Gly Val Pro Ala Leu Ala Ser Gln His Pro					
	2740		2745		2750
Pro Glu Glu Glu Val His Tyr His Leu Pro Val Ala Arg Ala Thr Ala					
	2755		2760		2765
Pro Val Gln Ser Glu Val Leu Val Met Gln Ser Glu Tyr Arg Leu His					
	2770		2775		2780
Pro Tyr Thr Val Pro Arg Asp Val Arg Ile Met Val His Pro His Val					
2785		2790		2795	2800
Thr Ala Val Ser Glu Gln Pro Arg Ala Ala Asp Gly Val Val Lys Val					
	2805		2810		2815
Pro Pro Ala Ser Lys Ala Pro Gln Gln Pro Gly Lys Glu Ala Ala Lys					
	2820		2825		2830
Thr Pro Asp Ala Lys Ala Ala Pro Thr Pro Thr Pro Ala Pro Val Pro					
	2835		2840		2845
Val Pro Val Pro Leu Pro Ala Pro Ala Pro Ala Pro His Gly Glu Ala					
	2850		2855		2860
Arg Ile Leu Thr Val Thr Pro Ser Asn Gln Leu Gln Gly Leu Pro Leu					
2865		2870		2875	2880
Thr Pro Pro Val Val Val Thr His Gly Val Gln Ile Val His Ser Ser					
	2885		2890		2895
Gly Glu Leu Phe Gln Glu Tyr Arg Tyr Gly Asp Ile Arg Thr Tyr His					
	2900		2905		2910
Pro Pro Ala Gln Leu Thr His Thr Gln Phe Pro Ala Ala Ser Ser Val					
	2915		2920		2925
Gly Leu Pro Ser Arg Thr Lys Thr Ala Ala Gln Gly Pro Pro Pro Glu					
	2930		2935		2940
Gly Glu Pro Leu Gln Pro Pro Gln Pro Val Gln Ser Thr Gln Pro Ala					
2945		2950		2955	2960
Gln Pro Ala Pro Pro Cys Pro Pro Ser Gln Leu Gly Gln Pro Gly Gln					
	2965		2970		2975
Pro Pro Ser Ser Lys Met Pro Gln Val Ser Gln Glu Ala Lys Gly Thr					
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Gln Thr Gly Val Glu Gln Pro Arg Leu Pro Ala Gly Pro Ala Asn Arg					
	2995		3000		3005
Pro Pro Glu Pro His Thr Gln Val Gln Arg Ala Gln Ala Glu Thr Gly					
	3010		3015		3020
Pro Thr Ser Phe Pro Ser Pro Val Ser Val Ser Met Lys Pro Asp Leu					
3025		3030		3035	3040
Pro Val Ser Leu Pro Thr Gln Thr Ala Pro Lys Gln Pro Leu Phe Val					
	3045		3050		3055
Pro Thr Thr Ser Gly Pro Ser Thr Pro Pro Gly Leu Val Leu Pro His					
	3060		3065		3070
Thr Glu Phe Gln Pro Ala Pro Lys Gln Asp Ser Ser Pro His Leu Thr					
	3075		3080		3085
Ser Gln Arg Pro Val Asp Met Val Gln Leu Leu Lys Lys Tyr Pro Ile					

3090	3095	3100
Val Trp Gln Gly Leu Leu Ala Leu Lys Asn Asp Thr Ala Ala Val Gln		
3105	3110	3115
Leu His Phe Val Ser Gly Asn Asn Val Leu Ala His Arg Ser Leu Pro		
	3125	3130
Leu Ser Glu Gly Gly Pro Pro Leu Arg Ile Ala Gln Arg Met Arg Leu		
	3140	3145
Glu Ala Thr Gln Leu Glu Gly Val Ala Arg Arg Met Thr Leu Ala Ser		
	3155	3160
Ala Ser Val Glu Thr Asp Tyr Cys Leu Leu Leu Ala Leu Pro Cys Gly		
	3170	3175
Arg Asp Gln Glu Asp Val Val Ser Gln Thr Glu Ser Leu Lys Ala Ala		
3185	3190	3195
Phe Ile Thr Tyr Leu Gln Ala Lys Gln Ala Ala Gly Ile Ile Asn Val		
	3205	3210
Pro Asn Pro Gly Ser Asn Gln Pro Ala Tyr Val Leu Gln Ile Phe Pro		
	3220	3225
Pro Cys Glu Phe Ser Glu Ser His Leu Ser Arg Leu Ala Pro Asp Leu		
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Ser Val		3260
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<210> 4511

<211> 1375

<212> DNA

<213> Homo sapiens

<400> 4511

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360
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420
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720

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<210> 4512

<211> 244

<212> PRT

<213> Homo sapiens

<400> 4512

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Glu	Glu	Met	Thr	Pro	Thr	Ser	Val	Ile	Pro	Lys	Leu	Pro	Gln	Cys	Leu
		35					40					45			
Arg	Glu	Glu	Glu	Glu	Lys	Glu	Ser	Asp	Ser	Asp	Ser	Glu	Gly	Pro	Ile
	50					55					60				
Gln	Tyr	Arg	Asp	Glu	Glu	Asp	Glu	Asp	Glu	Ser	Tyr	Gln	Ser	Ala	Leu
65				70					75					80	
Ala	Asn	Lys	Val	Lys	Arg	Lys	Asp	Thr	Leu	Ala	Met	Lys	Leu	Asn	His
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Arg	Pro	Ser	Glu	Pro	Glu	Leu	Asn	Leu	Asn	Ser	Trp	Pro	Cys	Lys	Ser
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Lys	Glu	Glu	Trp	Asn	Glu	Ile	Arg	His	Gln	Ile	Gly	Asn	Thr	Leu	Ile
		115				120					125				
Arg	Arg	Leu	Ser	Gln	Arg	Pro	Thr	Pro	Glu	Glu	Leu	Glu	Gln	Arg	Asn
	130					135					140				
Ile	Leu	Gln	Pro	Lys	Asn	Glu	Ala	Asp	Arg	Gln	Ala	Glu	Lys	Arg	Glu
145				150					155					160	
Ile	Lys	Arg	Arg	Leu	Thr	Arg	Lys	Leu	Ser	Gln	Arg	Pro	Thr	Val	Ala
			165					170						175	
Glu	Leu	Leu	Ala	Arg	Lys	Ile	Leu	Arg	Phe	Asn	Glu	Tyr	Val	Glu	Val
		180					185					190			
Thr	Asp	Ala	Gln	Asp	Tyr	Asp	Arg	Arg	Ala	Asp	Lys	Pro	Trp	Thr	Lys

	195		200		205										
Leu	Thr	Pro	Ala	Asp	Lys	Ala	Ala	Ile	Arg	Lys	Glu	Leu	Asn	Glu	Phe
	210					215					220				
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Tyr	His	Arg	Pro												

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 <211> 545
 <212> DNA
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 180
 cctgtctgtg gcttagcacg tgcaccacag agccaaccag atcctctgta aacttttggg
 240
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 300
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 420
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 540
 gatca
 545

<210> 4514
 <211> 122
 <212> PRT
 <213> Homo sapiens

<400> 4514
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 Ser Met Ser His Leu Leu Lys Gly Asn Ser Glu Glu Lys Ser Leu Met
 35 40 45
 Ile Met Lys Met Ile Ser Ala Thr Glu Gly Pro Val Lys Ala Arg Glu
 50 55 60
 Val Gln Lys Phe Thr Glu Asp Leu Val Gly Ser Val Val His Val Leu
 65 70 75 80
 Ser His Arg Gln Glu Leu Arg Gly Trp Thr Gly Lys Glu Ala Pro Gly
 85 90 95
 Pro Asn Pro Arg Val Gln Val Leu Thr Ala Gln Leu Leu Ser Asp Met

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 Lys Leu Gln Gly Lys Cys Ala Trp Thr Arg
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110

<210> 4515
 <211> 3207
 <212> DNA
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 240
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<210> 4516

<211> 901

<212> PRT

<213> Homo sapiens

<400> 4516

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Ser	Arg	Ala	Gly	Arg	Pro	Pro	Gln	Leu	Val	Leu	Asp	Leu	Ser	Arg	Arg	195	200	205	
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<211> 2275

<212> DNA

<213> Homo sapiens

<400> 4517

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<211> 650
 <212> PRT
 <213> Homo sapiens

<400> 4518

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<210> 4520

<211> 617

<212> PRT

<213> Homo sapiens

<400> 4520

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Phe	Glu	Pro	Lys	Pro	Leu	Leu	Glu	Gln	Ala	Cys	Leu	Ile	Pro	Cys	Gln
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Gln	Asp	Cys	Ile	Val	Ser	Glu	Phe	Ser	Ala	Trp	Ser	Glu	Cys	Ser	Lys
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Thr	Cys	Gly	Ser	Gly	Leu	Gln	His	Arg	Thr	Arg	His	Val	Val	Ala	Pro
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Pro	Gln	Phe	Gly	Gly	Ser	Gly	Cys	Pro	Asn	Leu	Thr	Glu	Phe	Gln	Val
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			180					185					190		
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Gln	Ala	Arg	Arg	Arg	Gly	Lys	Asn	Lys	Glu	Arg	Glu	Lys	Asp	Arg	Ser
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Lys	Gly	Val	Lys	Asp	Pro	Glu	Ala	Arg	Glu	Leu	Ile	Lys	Lys	Lys	Arg
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Asn	Arg	Asn	Arg	Gln	Asn	Arg	Gln	Glu	Asn	Lys	Tyr	Trp	Asp	Ile	Gln
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Lys Glu Cys Pro Glu Phe Glu Glu Lys Glu Pro Cys Leu Ser Gln Gly				
		340		345
				350
Asp Gly Val Val Pro Cys Ala Thr Tyr Gly Trp Arg Thr Thr Glu Trp				
		355		360
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Thr Glu Cys Arg Val Asp Pro Leu Leu Ser Gln Gln Asp Lys Arg Arg				
		370		375
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Gly Asn Gln Thr Ala Leu Cys Gly Gly Gly Ile Gln Thr Arg Glu Val				
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				400
Tyr Cys Val Gln Ala Asn Glu Asn Leu Leu Ser Gln Leu Ser Thr His				
		405		410
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Lys Asn Lys Glu Ala Ser Lys Pro Met Asp Leu Lys Leu Cys Thr Gly				
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Pro Ile Pro Asn Thr Thr Gln Leu Cys His Ile Pro Cys Pro Thr Glu				
		435		440
				445
Cys Glu Val Ser Pro Trp Ser Ala Trp Gly Pro Cys Thr Tyr Glu Asn				
		450		455
				460
Cys Asn Asp Pro Gln Gly Lys Lys Gly Phe Lys Leu Arg Lys Arg Arg				
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				480
Ile Thr Asn Glu Pro Thr Gly Gly Ser Gly Leu Thr Gly Asn Cys Pro				
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				495
His Leu Leu Glu Ala Ile Pro Cys Glu Glu Pro Ala Cys Tyr Asp Trp				
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Lys Ala Val Arg Leu Gly Asp Cys Glu Pro Asp Asn Gly Lys Glu Cys				
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Gly Pro Gly Thr Gln Val Gln Glu Val Val Cys Ile Asn Ser Asp Gly				
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Glu Glu Val Asp Arg Gln Leu Cys Arg Asp Ala Ile Phe Pro Ile Pro				
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				560
Val Ala Cys Asp Ala Pro Cys Pro Lys Asp Cys Val Leu Ser Thr Trp				
		565		570
				575
Ser Thr Trp Ser Ser Cys Ser His Thr Cys Ser Gly Lys Thr Thr Glu				
		580		585
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Gly Lys Gln Ile Arg Ala Arg Ser Ile Leu Ala Tyr Ala Gly Glu Glu				
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<210> 4521

<211> 1071

<212> DNA

<213> Homo sapiens

<400> 4521

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120

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180

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<211> 189

<212> PRT

<213> Homo sapiens

<400> 4522

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			20					25					30		
His	Thr	Glu	Thr	Ala	Ser	Ser	Phe	Gln	Pro	Ser	Pro	Phe	Ser	Ala	Asp
			35				40					45			
Phe	Glu	Leu	Gln	Ile	Ser	Leu	Leu	Tyr	Leu	Glu	Ser	Pro	Ile	Ser	Leu
			50			55				60					
Gln	Glu	Phe	Ala	Leu	Ser	Phe	Ile	Ile	Ile	Leu	Val	Tyr	Val	Leu	Asp
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Trp	Ala	Ala	Ile	Thr	Arg	Cys	His	Arg	Leu	Ser	Gly	Leu	Asn	Asn	Lys
				85				90					95		
His	Ser	Tyr	Pro	Thr	Val	Thr	Glu	Ala	Glu	Lys	Pro	Gly	Val	Lys	Val
			100					105					110		
Pro	Ala	Trp	Ser	Asp	Ser	Val	Leu	Glu	Ala	Gly	Lys	Ser	Lys	Met	Glu
			115				120					125			
Ala	Leu	Val	Gly	Leu	Val	Ser	Gly	Arg	Ala	Ser	Leu	Cys	Phe	Gln	Asp

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<210> 4523
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 <212> DNA
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<210> 4524
 <211> 262
 <212> PRT

<213> Homo sapiens

<400> 4524

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 35 40 45
 Glu Ala Leu Arg Lys Met Gly Leu Arg Pro Gly Val Arg His Pro Phe
 50 55 60
 Leu Gly Asp Leu Arg Lys Leu Ile Thr Asp Asp Phe Val Lys Gln Lys
 65 70 75 80
 Tyr Leu Glu Tyr Lys Lys Ile Pro Asn Ser Asn Pro Pro Glu Tyr Glu
 85 90 95
 Phe Leu Trp Gly Leu Arg Ala Arg His Glu Thr Ser Lys Met Arg Val
 100 105 110
 Leu Arg Phe Ile Ala Gln Asn Gln Asn Arg Asp Pro Arg Glu Trp Lys
 115 120 125
 Ala His Phe Leu Glu Ala Val Asp Asp Ala Phe Lys Thr Met Asp Val
 130 135 140
 Asp Met Ala Glu Glu His Ala Arg Ala Gln Met Arg Ala Gln Met Asn
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 Ile Gly Asp Glu Ala Leu Ile Gly Arg Trp Ser Trp Asp Asp Ile Gln
 165 170 175
 Val Glu Leu Leu Thr Trp Asp Glu Asp Gly Asp Phe Gly Asp Ala Trp
 180 185 190
 Ala Arg Ile Pro Phe Ala Phe Trp Ala Arg Tyr His Gln Tyr Ile Leu
 195 200 205
 Asn Ser Asn Arg Ala Asn Arg Ala Thr Trp Arg Ala Gly Val Ser
 210 215 220
 Ser Gly Thr Asn Gly Gly Ala Ser Thr Ser Val Leu Asp Gly Pro Ser
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<211> 1731

<212> DNA

<213> Homo sapiens

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<210> 4526

<211> 344

<212> PRT

<213> Homo sapiens

<400> 4526

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Glu Ala Val Asp Thr Ile Gln Pro Glu Thr Gly Ser Gln Ala Ser Ser
           35           40           45
Glu Gln Pro Gly Gln Leu Ile Ser Phe Ser Glu Ala Leu Gln His Phe
           50           55           60
Gln Thr Val Asp Leu Ser Pro Phe Lys Lys Arg Ile Gln Pro Thr Ile
65           70           75           80
Arg Arg Thr Gly Leu Ala Ala Leu Arg His Tyr Leu Phe Gly Pro Pro
           85           90           95
Lys Leu His Gln Arg Leu Arg Glu Glu Arg Asp Leu Val Leu Thr Ile
           100          105          110
Ala Gln Cys Gly Leu Asp Ser Gln Asp Pro Val His Gly Arg Val Leu
           115          120          125
Gln Thr Ile Tyr Lys Lys Leu Thr Gly Ser Lys Phe Asp Cys Ala Leu
           130          135          140
His Gly Asn His Trp Glu Asp Leu Gly Phe Gln Gly Ala Asn Pro Ala
145          150          155          160
Thr Asp Leu Arg Gly Ala Gly Phe Leu Ala Leu Leu His Leu Leu Tyr
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Leu Val Met Asp Ser Lys Thr Leu Pro Met Ala Gln Glu Ile Phe Arg
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Leu Ser Arg His His Ile Gln Gln Phe Pro Phe Cys Leu Met Ser Val
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Asn Ile Thr His Ile Ala Ile Gln Ala Leu Arg Glu Glu Cys Leu Ser
           210          215          220
Arg Glu Cys Asn Arg Gln Gln Lys Val Ile Pro Val Val Asn Ser Phe
225          230          235          240
Tyr Ala Ala Thr Phe Leu His Leu Ala His Val Trp Arg Thr Gln Arg
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Lys Thr Ile Ser Asp Ser Gly Phe Val Leu Lys Gly Val Leu Phe Leu
           260          265          270
Leu Gly Arg Pro Arg Leu Asn Ala Gln Cys Pro Arg Ser Arg Glu Pro
           275          280          285
Lys Val Val Ala Arg Leu Val Leu Ala Ala Val Leu Pro His Pro His
           290          295          300
Phe Leu Lys Phe Gln Leu Thr Lys Ile Ser Ile Thr His Pro Leu Glu
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<210> 4527

<211> 885

<212> DNA

<213> Homo sapiens

<400> 4527

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<211> 206

<212> PRT

<213> Homo sapiens

<400> 4528

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Ser	Gln	Lys	Gly	Ser	Leu	Gly	His	Leu	Pro	Thr	Gln	Pro	Trp	Leu	Trp	
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Ala	Ala	Met	Ser	Pro	Arg	Gly	Gln	Glu	Arg	Gly	Thr	Ser	His	Ser	Gln	
			50				55				60					
Ala	Arg	Glu	Pro	Gln	Arg	Pro	Gly	Arg	Trp	Leu	Leu	Gly	Ser	Leu	Gln	
65					70				75					80		
Ser	Ser	Pro	Gly	Thr	Leu	Gly	Gln	Ala	Gly	Thr	Ala	Ser	Arg	Arg	Arg	
				85				90					95			
Gly	Cys	Met	Val	Gln	Arg	Trp	Val	Gln	Val	Ala	Thr	Gly	Arg	Arg	Ala	
			100				105					110				
Val	Gln	Val	Pro	Lys	Gly	Ala	Leu	Gly	Leu	Ala	Leu	Gly	Glu	Thr	Ser	
			115				120					125				
Pro	Gly	Ala	Ser	Arg	Gly	Met	Ser	Gly	Gly	Ala	Gly	Gly	Cys	Trp	Ala	
			130			135					140					
Leu	Gly	Trp	Ala	Pro	Ser	Pro	Val	Leu	Pro	Ser	Trp	Leu	Leu	Glu	Gly	


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145          150          155          160
Pro Pro Pro Trp Leu Ser Ile Ile Ser Asp Ser Gly Thr Gln Thr Pro
          165          170          175
Ser Pro Arg Arg Cys Pro Ala Arg Pro Ser Pro Trp Gly Pro Gln Cys
          180          185          190
Trp Arg Gly Gly Arg Ile Ala Ser Ala Glu Ala Ser Ser Thr
          195          200          205

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<210> 4529
 <211> 546
 <212> DNA
 <213> Homo sapiens

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<400> 4529
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gtggccgccg cctaagctgc agccgccgga gccgcagaaa caagaggccg agccgtgtcg
120
aagatggagg agaaaccctc agggcccatc ccggacatgc tggccactgc agagcccagc
180
tccagtgaga ccgacaagga ggtgttgtcc ccggtgtgac cagctgcagc cccctcctcc
240
tccatgtcgg aggagccagg ccctgagcag gcagccacac cgccagtggg gaacgtggag
300
gggctggagg gatgcagcag ggctcctccc cagccccaga cagctgccag tctggccccg
360
gaccagccc tggcctgacc agcatagtct ccgggaccag cgaggacctg cggcctccca
420
gacgacgccc acctccaggg aagcaaatcc cttgctccag ccctggctgc tgcctcagtt
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540
agtctc
546

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<210> 4530
 <211> 84
 <212> PRT
 <213> Homo sapiens

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<400> 4530
Met Glu Glu Lys Pro Ser Gly Pro Ile Pro Asp Met Leu Ala Thr Ala
1          5          10          15
Glu Pro Ser Ser Ser Glu Thr Asp Lys Glu Val Leu Ser Pro Ala Val
          20          25          30
Pro Ala Ala Ala Pro Ser Ser Ser Met Ser Glu Glu Pro Gly Pro Glu
          35          40          45
Gln Ala Ala Thr Pro Pro Val Gly Asn Val Glu Gly Leu Glu Gly Cys
          50          55          60
Ser Arg Ala Pro Pro Gln Pro Gln Thr Ala Ala Ser Leu Ala Pro Asp
65          70          75          80
Pro Ala Leu Ala

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<210> 4531
<211> 1414
<212> DNA
<213> Homo sapiens

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120
gtgagcctgg ccaacttaaa gccgaatccc ggctccaaga aaccggagag aagaccaaga
180
ggtcggagaa gaggtagaaa atgtggcaga ggccataaag gagaaaggca aagaggaacc
240
cggccccgct tgggctttga gggaggccag actccatttt acatccgaat cccaaaatac
300
gggtttaacg aaggacatag tttcagacgc cagtataagc ctttgagtct caatagactg
360
cagtatctta ttgatttggg tcgtgttgat cctagtcaac ctattgactt aaccagctt
420
gtcaatggga gaggtgtgac catccagcca cttaaaaggg attatggtgt ccagctggtt
480
gaggaggggtg ctgacacctt tacggcaaaa gttaatatgt aagtacagtt ggcttcagaa
540
ctagctattg ctgccattga aaaaaatggg ggtgttggtta ctacagcctt ctatgatcca
600
agaagtcttg acattgtatg caaacctggt ccattctttc ttctgggaca acccattcca
660
aaaagaatgc ttccaccaga agaactggta ccatattaca ctgatgcaaa gaaccgtggg
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tacctggcgg atcctgccaa atttcctgaa gcacgacttg aactcgccag gaagtatggt
780
tatatcttac ctgatatcac taaagatgaa ctcttcaaaa tgctctgtac taggaaggat
840
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900
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960
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1020
cattttcctt atgtataatt ttccagatgg tgatgttact tttcagtgtg ctcatatgtc
1080
tcattttcat ctaaaattaa atggcaggaa acaaggactg catagagaaa ctgagtctgt
1140
gtgggttctg tctcaaagat acaaaactccc tgatagtcta tggaaggaaa atgacaacta
1200
ttttagaata tttctagttt gttttttcag tgatcttttc atccaggcct tgttactgtt
1260
acagatcaga atgaaatgca caagtggaat gggattgacc tgtaggcctg ctctgccgag
1320
atgagagcag atggaatgag ttggtgaccc ctcttaatct gtagcctcag ggaaacacgg
1380
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1414

<210> 4532
 <211> 296
 <212> PRT
 <213> Homo sapiens

<400> 4532
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 20 25 30
 Ser Lys Lys Pro Glu Arg Arg Pro Arg Gly Arg Arg Gly Arg Lys
 35 40 45
 Cys Gly Arg Gly His Lys Gly Glu Arg Gln Arg Gly Thr Arg Pro Arg
 50 55 60
 Leu Gly Phe Glu Gly Gly Gln Thr Pro Phe Tyr Ile Arg Ile Pro Lys
 65 70 75 80
 Tyr Gly Phe Asn Glu Gly His Ser Phe Arg Arg Gln Tyr Lys Pro Leu
 85 90 95
 Ser Leu Asn Arg Leu Gln Tyr Leu Ile Asp Leu Gly Arg Val Asp Pro
 100 105 110
 Ser Gln Pro Ile Asp Leu Thr Gln Leu Val Asn Gly Arg Gly Val Thr
 115 120 125
 Ile Gln Pro Leu Lys Arg Asp Tyr Gly Val Gln Leu Val Glu Glu Gly
 130 135 140
 Ala Asp Thr Phe Thr Ala Lys Val Asn Ile Glu Val Gln Leu Ala Ser
 145 150 155 160
 Glu Leu Ala Ile Ala Ala Ile Glu Lys Asn Gly Gly Val Val Thr Thr
 165 170 175
 Ala Phe Tyr Asp Pro Arg Ser Leu Asp Ile Val Cys Lys Pro Val Pro
 180 185 190
 Phe Phe Leu Arg Gly Gln Pro Ile Pro Lys Arg Met Leu Pro Pro Glu
 195 200 205
 Glu Leu Val Pro Tyr Tyr Thr Asp Ala Lys Asn Arg Gly Tyr Leu Ala
 210 215 220
 Asp Pro Ala Lys Phe Pro Glu Ala Arg Leu Glu Leu Ala Arg Lys Tyr
 225 230 235 240
 Gly Tyr Ile Leu Pro Asp Ile Thr Lys Asp Glu Leu Phe Lys Met Leu
 245 250 255
 Cys Thr Arg Lys Asp Pro Arg Gln Ile Phe Phe Gly Leu Ala Pro Gly
 260 265 270
 Trp Val Val Asn Met Ala Asp Lys Lys Ile Leu Lys Pro Thr Asp Glu
 275 280 285
 Asn Leu Leu Lys Tyr Tyr Thr Ser
 290 295

<210> 4533
 <211> 968
 <212> DNA
 <213> Homo sapiens

<400> 4533
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 120
 gcgcggcggc cccgcgcagc catggactgg ctcatgggga agtccaaagc caagcccaat
 180
 ggcaagaagc ccgctgcgga ggagaggaag gcctacctgg agcctgagca caccaaggcc
 240
 aggatcaccg acttccagtt caaggagctg gtggtgctgc cccgggagat cgacctcaac
 300
 gagtggctgg ccagcaacac aacaacattt ttccaccaca tcaacctgca gtatagcaca
 360
 atctcggagt tctgcacagg agagacgtgt cagacgatgg ccgtgtgcaa cacacgtac
 420
 tactggtatg acgagcgggg gaagaaggtc aagtgcacgg cccacagta cgttgacttc
 480
 gtcattgagct ccgtgcagaa gctgggtgacg gatgaggacg tgttccccac aaaatacggc
 540
 agagaattcc ccagctcctt tgagtccttg gtgaggaaga tctgcagaca cctgttccac
 600
 gtgctggcac acattctactg ggcccacttc aaggagacgc tggccctgga gctgcacgga
 660
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 720
 cccaaagaga ccgccatcat ggacgacctc accgaggtgc tatgcagcgg ggccggcggg
 780
 gtccacagtg ggggcagtgg ggatggggcc ggcagcgggg gcccgggagc acagaaccac
 840
 gtgaaggaga gatgagcccc ccgggccgga caggggcaca cgtgtgcaaa gagacggtgg
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 968

<210> 4534

<211> 284

<212> PRT

<213> Homo sapiens

<400> 4534

Thr	Arg	Ala	Gln	His	Met	Cys	Ala	His	Ala	Asp	Ala	Gly	Glu	Asn	Thr
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His	His	Arg	Leu	Phe	Ala	His	Val	Cys	Pro	Cys	Pro	Asp	Ala	Gly	Ala
			20					25					30		
Glu	Ala	Asp	Arg	Val	Gly	Gln	Arg	Ala	Arg	Arg	Pro	Arg	Ala	Ala	Met
		35				40						45			
Asp	Trp	Leu	Met	Gly	Lys	Ser	Lys	Ala	Lys	Pro	Asn	Gly	Lys	Lys	Pro
	50				55						60				
Ala	Ala	Glu	Glu	Arg	Lys	Ala	Tyr	Leu	Glu	Pro	Glu	His	Thr	Lys	Ala
65					70				75					80	
Arg	Ile	Thr	Asp	Phe	Gln	Phe	Lys	Glu	Leu	Val	Val	Leu	Pro	Arg	Glu
				85				90						95	
Ile	Asp	Leu	Asn	Glu	Trp	Leu	Ala	Ser	Asn	Thr	Thr	Thr	Phe	Phe	His
			100					105					110		
His	Ile	Asn	Leu	Gln	Tyr	Ser	Thr	Ile	Ser	Glu	Phe	Cys	Thr	Gly	Glu

115	120	125
Thr Cys Gln Thr Met Ala Val Cys Asn Thr Gln Tyr Tyr Trp Tyr Asp		
130	135	140
Glu Arg Gly Lys Lys Val Lys Cys Thr Ala Pro Gln Tyr Val Asp Phe		
145	150	155
Val Met Ser Ser Val Gln Lys Leu Val Thr Asp Glu Asp Val Phe Pro		
165	170	175
Thr Lys Tyr Gly Arg Glu Phe Pro Ser Ser Phe Glu Ser Leu Val Arg		
180	185	190
Lys Ile Cys Arg His Leu Phe His Val Leu Ala His Ile Tyr Trp Ala		
195	200	205
His Phe Lys Glu Thr Leu Ala Leu Glu Leu His Gly His Leu Asn Thr		
210	215	220
Leu Tyr Val His Phe Ile Leu Phe Ala Arg Glu Phe Asn Leu Leu Asp		
225	230	235
Pro Lys Glu Thr Ala Ile Met Asp Asp Leu Thr Glu Val Leu Cys Ser		
245	250	255
Gly Ala Gly Gly Val His Ser Gly Gly Ser Gly Asp Gly Ala Gly Ser		
260	265	270
Gly Gly Pro Gly Ala Gln Asn His Val Lys Glu Arg		
275	280	

<210> 4535
 <211> 473
 <212> DNA
 <213> Homo sapiens

<400> 4535
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 120
 ctcagcctcc cgagtagctg ggattacagg cgtccgccac cagccccggc taatttttgt
 180
 atttttagta gaaacggggt ttcaccatct cggccaggct ggtcttgaac tcttgacctc
 240
 atgatccatc cgccttggcc tccc aaagtg ctgggattac aggcattgagc taccgcgccc
 300
 ggccttggct gcagattaac gggaatacct cccttgggct tcttaggtga cactgtgata
 360
 ttccggtatga cctcccttgc tctattcctt ggaagaagta caggcactgg tcaagagtgc
 420
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 473

<210> 4536
 <211> 75
 <212> PRT
 <213> Homo sapiens

<400> 4536
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 Gln Ala Gly Val Gln Trp His Asp His Ser Ser Leu Gln Pro Leu Pro

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120					
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180					
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240					
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300					
gaggagngca	gtagcagagg	tgctagacca	tcgaccctac	gagccgaaac	actgccctcc
360					
ctgnnccatg	tttcagttga	gctggtgggg	tcctgtgcta	ccctgggtgac	cgagagaatc
420					
ctgcaggggg	caccagagat	cttggaacag	caaactgcag	cccttctgca	tggaaccatc
480					
atcctggact	gtgtcaacat	ggaccttaaa	attggaaagg	caacccccaa	ggacagcaaa
540					
tatgtggaga	aactagaggc	ccttttccca	gacctacca	agagaaatga	tatatattgat
600					
tccctacaaa	aggcaaagtt	tgatgtatca	ggactgacca	ctgagcagat	gctgagaaaa
660					
gaccagaaga	ctatctatag	acaaggcgtc	aagggtggcca	ttagtgcaat	atatatggat
720					
ttggaggcct	ttctgcagag	gtctaacctc	cttgacagatc	tccatgcttt	ctgccaggct
780					
cacagctatg	atgtcctggt	tgccatgact	atctttttca	acactcacia	tgagccagtg
840					
cggcagttgg	ctattttctg	tccccatgtg	gcactccaaa	caacgatctg	tgaagtctctg
900					
gaacgctccc	actctccacc	cctgaagctg	accctgcct	caagtacca	ccctaacctc
960					
catgcctatc	ttcaaggcaa	caccaggtc	tctcgaaaaga	aacttctgcc	cctgctccag
1020					
gaagccctgt	cagcatattt	tgactccatg	aagatccctt	caggacagcc	tgagacagca
1080					
gatgtgtcca	gggagcaagt	ggacaaggaa	ttggacaggg	caagtaactc	cctgatttct
1140					
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1200					

gatgagtgcc ctctagatca ggggctgcct aaactctctg ctgaggccgt cttcgagaag
1260
tgcagtcaga tctcactgtc acagtctacc acagcctccc tgtccaagaa gtgactgttg
1320
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1380
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1440
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1920
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1980
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2160
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2280
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2460
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2520
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2580
caacagtttc actgaacagt ggggtatgtg atgggttttg catgacatct tcagtatgag
2640
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2700
agtgggtgta tcatgaacca aaggaattta tgttttgtaa cttgggtact ttattttgca
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2811

<210> 4538
 <211> 437
 <212> PRT
 <213> Homo sapiens

<400> 4538

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Ser	Ala	Leu	Ala	Leu	Ala	Phe	Tyr	Leu	Ala	Lys	Thr	Thr	Glu	Ala	Glu
		20						25					30		
Glu	Val	Phe	Val	Pro	Val	Leu	Asn	Ile	Lys	Arg	Ser	Glu	Leu	Pro	Leu
		35					40					45			
Arg	Gly	Asp	Ile	Val	Phe	Phe	Leu	Gln	Lys	Val	His	Ile	Pro	Glu	Ser
	50					55					60				
Ile	Leu	Ile	Phe	Arg	Asp	Glu	Ile	Asp	Leu	His	Ala	Leu	Tyr	Gln	Ala
65				70						75				80	
Gly	Gln	Leu	Thr	Leu	Ile	Leu	Val	Asp	His	His	Ile	Leu	Ser	Lys	Ser
			85						90					95	
Asp	Thr	Ala	Leu	Glu	Glu	Xaa	Ser	Ser	Arg	Gly	Ala	Arg	Pro	Ser	Thr
		100						105					110		
His	Arg	Ala	Glu	Thr	Leu	Pro	Ser	Leu	Xaa	His	Val	Ser	Val	Glu	Leu
	115					120						125			
Val	Gly	Ser	Cys	Ala	Thr	Leu	Val	Thr	Glu	Arg	Ile	Leu	Gln	Gly	Ala
	130					135					140				
Pro	Glu	Ile	Leu	Asp	Arg	Gln	Thr	Ala	Ala	Leu	Leu	His	Gly	Thr	Ile
145					150					155				160	
Ile	Leu	Asp	Cys	Val	Asn	Met	Asp	Leu	Lys	Ile	Gly	Lys	Ala	Thr	Pro
			165					170						175	
Lys	Asp	Ser	Lys	Tyr	Val	Glu	Lys	Leu	Glu	Ala	Leu	Phe	Pro	Asp	Leu
		180						185					190		
Pro	Lys	Arg	Asn	Asp	Ile	Phe	Asp	Ser	Leu	Gln	Lys	Ala	Lys	Phe	Asp
	195					200						205			
Val	Ser	Gly	Leu	Thr	Thr	Glu	Gln	Met	Leu	Arg	Lys	Asp	Gln	Lys	Thr
	210					215						220			
Ile	Tyr	Arg	Gln	Gly	Val	Lys	Val	Ala	Ile	Ser	Ala	Ile	Tyr	Met	Asp
225				230						235				240	
Leu	Glu	Ala	Phe	Leu	Gln	Arg	Ser	Asn	Leu	Leu	Ala	Asp	Leu	His	Ala
			245						250					255	
Phe	Cys	Gln	Ala	His	Ser	Tyr	Asp	Val	Leu	Val	Ala	Met	Thr	Ile	Phe
		260						265					270		
Phe	Asn	Thr	His	Asn	Glu	Pro	Val	Arg	Gln	Leu	Ala	Ile	Phe	Cys	Pro
	275					280						285			
His	Val	Ala	Leu	Gln	Thr	Thr	Ile	Cys	Glu	Val	Leu	Glu	Arg	Ser	His
	290					295					300				
Ser	Pro	Pro	Leu	Lys	Leu	Thr	Pro	Ala	Ser	Ser	Thr	His	Pro	Asn	Leu
305				310						315				320	
His	Ala	Tyr	Leu	Gln	Gly	Asn	Thr	Gln	Val	Ser	Arg	Lys	Lys	Leu	Leu
			325						330					335	
Pro	Leu	Leu	Gln	Glu	Ala	Leu	Ser	Ala	Tyr	Phe	Asp	Ser	Met	Lys	Ile
		340						345					350		
Pro	Ser	Gly	Gln	Pro	Glu	Thr	Ala	Asp	Val	Ser	Arg	Glu	Gln	Val	Asp
	355					360						365			
Lys	Glu	Leu	Asp	Arg	Ala	Ser	Asn	Ser	Leu	Ile	Ser	Gly	Leu	Ser	Gln

370 375 380
 Asp Glu Glu Asp Pro Pro Leu Pro Pro Thr Pro Met Asn Ser Leu Val
 385 390 395 400
 Asp Glu Cys Pro Leu Asp Gln Gly Leu Pro Lys Leu Ser Ala Glu Ala
 405 410 415
 Val Phe Glu Lys Cys Ser Gln Ile Ser Leu Ser Gln Ser Thr Thr Ala
 420 425 430
 Ser Leu Ser Lys Lys
 435

<210> 4539
 <211> 331
 <212> DNA
 <213> Homo sapiens

<400> 4539
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 tgggctggac tccgagaaag accagaagcc tgggggaaaa ccaaagggtg atcaatgaac
 120
 tcacctggaa actccagcaa gagcagagggc aggtggagga gctgaggatg cagcttcaga
 180
 agcagaaaaag gaataactgt tcagagaaga agccgctgcc tttcctggct gcctccatca
 240
 agcaagaaga ggctgtctcc agctgtcctt ttgcatocca agtacctgtg aaaagacaaa
 300
 gcagcagctc aaagtgtcac ccaccggctt g
 331

<210> 4540
 <211> 99
 <212> PRT
 <213> Homo sapiens

<400> 4540
 Met Gly Ala Leu Phe Leu Leu Ser Trp Met Gly Trp Thr Pro Arg Lys
 1 5 10 15
 Thr Arg Ser Leu Gly Glu Asn Gln Arg Val Ile Asn Glu Leu Thr Trp
 20 25 30
 Lys Leu Gln Gln Glu Gln Arg Gln Val Glu Glu Leu Arg Met Gln Leu
 35 40 45
 Gln Lys Gln Lys Arg Asn Asn Cys Ser Glu Lys Lys Pro Leu Pro Phe
 50 55 60
 Leu Ala Ala Ser Ile Lys Gln Glu Glu Ala Val Ser Ser Cys Pro Phe
 65 70 75 80
 Ala Ser Gln Val Pro Val Lys Arg Gln Ser Ser Ser Ser Lys Cys His
 85 90 95
 Pro Pro Ala

<210> 4541
 <211> 452
 <212> DNA
 <213> Homo sapiens

<400> 4541

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 cacaggcaga tccagggatg taactgcttc agcaagaact gttgcgaatc ccttcgctgt
 120
 tccagtctga gaaccataaa aaatcttcac tccagacaca aagatgtctt tctcttgaag
 180
 ggagacataa ccatttgtca tcaaactcctg agctgctttt ggaacagatt tttcctgtaa
 240
 gttcttgccc tgcgtcttga tgacaatctg gacacaaatc caaaggctaa tgctaacagc
 300
 aaagcccaaa taaatgtaaa acctgtttat ccacaatgat attaaagggtg agaagaggtc
 360
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 420
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<210> 4542

<211> 128

<212> PRT

<213> Homo sapiens

<400> 4542

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Leu	Trp	Ile	Asn	Arg	Phe	Tyr	Ile	Tyr	Leu	Gly	Phe	Ala	Val	Ser	Ile
			20					25					30		
Ser	Leu	Trp	Ile	Cys	Val	Gln	Ile	Val	Ile	Lys	Thr	Gln	Gly	Lys	Asn
		35				40						45			
Leu	Gln	Glu	Lys	Ser	Val	Pro	Lys	Ala	Ala	Gln	Asp	Leu	Met	Thr	Asn
	50					55				60					
Gly	Tyr	Val	Ser	Leu	Gln	Glu	Lys	Asp	Ile	Phe	Val	Ser	Gly	Val	Lys
65					70					75				80	
Ile	Phe	Tyr	Gly	Ser	Gln	Thr	Gly	Thr	Ala	Lys	Gly	Phe	Ala	Thr	Val
			85					90						95	
Leu	Ala	Glu	Ala	Val	Thr	Ser	Leu	Asp	Leu	Pro	Val	Ala	Ile	Ile	Asn
			100					105					110		
Leu	Lys	Glu	Tyr	Asp	Pro	Asp	Asp	His	Leu	Ile	Glu	Glu	Val	Thr	Ser
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<210> 4543

<211> 815

<212> DNA

<213> Homo sapiens

<400> 4543

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 180

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 240
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 480
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 660
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 720
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<210> 4544

<211> 150

<212> PRT

<213> Homo sapiens

<400> 4544

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Gln	Ser	Glu	Pro	Ser	Ala	Leu	Pro	Gly	Leu	Asp	Leu	Phe	Leu	Asn	Ser
			20					25					30		
His	Lys	Leu	Gln	Gly	Ala	Ala	Ala	Val	Ser	Leu	Ala	Arg	His	Trp	Pro
		35				40						45			
Ile	Thr	Ser	Asn	Arg	Leu	Gly	Arg	Ala	Pro	Val	Glu	Ser	Pro	Val	Pro
	50				55						60				
Ser	His	Phe	Arg	Arg	Val	Ala	Leu	Leu	Pro	Arg	Ser	Arg	Ser	Gln	Trp
65					70					75				80	
Pro	Asp	Lys	Gln	Ser	His	Ser	Gly	Val	Val	Arg	Pro	Gly	Arg	Val	Ser
			85					90					95		
Pro	Val	Gly	Gly	Arg	Gly	Ala	Leu	Ala	Arg	Arg	Val	Ser	Gly	Glu	Ala
		100				105						110			
Lys	Cys	Lys	Ala	Leu	Val	Arg	Gly	Ala	Ser	Gly	Ser	His	Gly	Gly	Ala
	115					120					125				
Ala	Gly	Gln	Gly	Pro	Ala	Val	Thr	Arg	Ser	Pro	Ser	Ser	Leu	Cys	Leu
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<210> 4545

<211> 3568

<212> DNA

<213> Homo sapiens

<400> 4545

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120
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180
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240
aagctctgca ttactagggg tgaagaactg acttttcatc ttctagaatt tctgaagga
300
aaaggagtgg ctgtcaagga aagaattatt ccatatttat tacgactgag acaaattaag
360
gatgaaactc ttcaggctgc agttagagaa attttggccc taattggcta tgtggatcca
420
gtgaaaggga gaggaatccg aattctctca attgatggtg gaggaacaag gggcgtgggt
480
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540
gattacattt gtggtgtaag cacagggtgcc atattagctt tcatgttggg gttgtttcat
600
atgcccttgg atgaatgtga ggaactttat cgaaaattag gatcagatgt attttcacaa
660
aatgtcattg ttggaacagt aaaaatgagt tggagccatg cattttatga cagtcaaaca
720
tgggaaaaca ttcttaagga taggatggga tctgcactga tgattgaaac agcaagaaac
780
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900
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960
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1080
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1380
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1560

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3180

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 3360
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 3420
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 3480
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 3568

<210> 4546
 <211> 380
 <212> PRT
 <213> Homo sapiens

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 Asp Pro Val Lys Gly Arg Gly Ile Arg Ile Leu Ser Ile Asp Gly Gly
 35 40 45
 Gly Thr Arg Gly Val Val Ala Leu Gln Thr Leu Arg Lys Leu Val Glu
 50 55 60
 Leu Thr Gln Lys Pro Val His Gln Leu Phe Asp Tyr Ile Cys Gly Val
 65 70 75 80
 Ser Thr Gly Ala Ile Leu Ala Phe Met Leu Gly Leu Phe His Met Pro
 85 90 95
 Leu Asp Glu Cys Glu Glu Leu Tyr Arg Lys Leu Gly Ser Asp Val Phe
 100 105 110
 Ser Gln Asn Val Ile Val Gly Thr Val Lys Met Ser Trp Ser His Ala
 115 120 125
 Phe Tyr Asp Ser Gln Thr Trp Glu Asn Ile Leu Lys Asp Arg Met Gly
 130 135 140
 Ser Ala Leu Met Ile Glu Thr Ala Arg Asn Pro Thr Cys Pro Lys Val
 145 150 155 160
 Ala Ala Val Ser Thr Ile Val Asn Arg Gly Ile Thr Pro Lys Ala Phe
 165 170 175
 Val Phe Arg Asn Tyr Gly His Phe Pro Gly Ile Asn Ser His Tyr Leu
 180 185 190
 Gly Gly Cys Gln Tyr Lys Met Trp Gln Ala Ile Arg Ala Ser Ser Ala
 195 200 205
 Ala Pro Gly Tyr Phe Ala Glu Tyr Ala Leu Gly Asn Asp Leu His Gln
 210 215 220
 Asp Gly Gly Leu Leu Leu Asn Asn Pro Ser Ala Leu Ala Met His Glu
 225 230 235 240
 Cys Lys Cys Leu Trp Pro Asp Val Pro Leu Glu Cys Ile Val Ser Leu
 245 250 255
 Gly Thr Gly Arg Tyr Glu Ser Asp Val Arg Asn Thr Val Thr Tyr Thr

Ser	Leu	Lys	Thr	Lys	Leu	Ser	Asn	Val	Ile	Asn	Ser	Ala	Thr	Asp	Thr
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		290				295					300				
Phe	Arg	Phe	Asn	Pro	Val	Met	Cys	Glu	Asn	Ile	Pro	Leu	Asp	Glu	Ser
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Arg	Asn	Glu	Lys	Leu	Asp	Gln	Leu	Gln	Leu	Glu	Gly	Leu	Lys	Tyr	Ile
				325					330					335	
Glu	Arg	Asn	Glu	Gln	Lys	Met	Lys	Lys	Val	Ala	Lys	Ile	Leu	Ser	Gln
			340					345					350		
Glu	Lys	Thr	Thr	Leu	Gln	Lys	Ile	Asn	Asp	Trp	Ile	Lys	Leu	Lys	Thr
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<210> 4547
<211> 2211
<212> DNA
<213> Homo sapiens
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420
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720
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780
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840
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agtgggtgcat cagtgggtgc tattcgaaaa tacatcatcc ataagtatcc ttctctggag
960

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<210> 4548

<211> 515

<212> PRT

<213> Homo sapiens

<400> 4548

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			20						25				30		
Val	Ser	Thr	Val	Glu	Glu	Gln	Glu	Asn	Glu	Thr	Pro	Pro	Ala	Thr	Ser

		35					40					45				
Ser	Glu	Ala	Glu	Gln	Pro	Lys	Gly	Glu	Pro	Glu	Asn	Glu	Glu	Lys	Glu	
	50					55					60					
Glu	Asn	Lys	Ser	Ser	Glu	Glu	Thr	Lys	Lys	Asp	Glu	Lys	Asp	Gln	Ser	
65					70					75				80		
Lys	Glu	Lys	Glu	Lys	Lys	Val	Lys	Lys	Thr	Ile	Pro	Ser	Trp	Ala	Thr	
				85					90					95		
Leu	Ser	Ala	Ser	Gln	Leu	Ala	Arg	Ala	Gln	Lys	Gln	Thr	Pro	Met	Ala	
			100					105					110			
Ser	Ser	Pro	Arg	Pro	Lys	Met	Asp	Ala	Ile	Leu	Thr	Glu	Ala	Ile	Lys	
		115					120					125				
Ala	Cys	Phe	Gln	Lys	Ser	Gly	Ala	Ser	Val	Val	Ala	Ile	Arg	Lys	Tyr	
	130					135					140					
Ile	Ile	His	Lys	Tyr	Pro	Ser	Leu	Glu	Leu	Glu	Arg	Arg	Gly	Tyr	Leu	
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				165					170					175		
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			180					185					190			
Val	Gln	Lys	Ser	Arg	Lys	Thr	Pro	Gln	Lys	Ser	Arg	Asn	Arg	Lys	Asn	
		195					200					205				
Arg	Ser	Ser	Ala	Val	Asp	Pro	Glu	Pro	Gln	Val	Lys	Leu	Glu	Asp	Val	
	210					215					220					
Leu	Pro	Leu	Ala	Phe	Thr	Arg	Leu	Cys	Glu	Pro	Lys	Glu	Ala	Ser	Tyr	
225				230					235					240		
Ser	Leu	Ile	Arg	Lys	Tyr	Val	Ser	Gln	Tyr	Tyr	Pro	Lys	Leu	Arg	Val	
				245					250					255		
Asp	Ile	Arg	Pro	Gln	Leu	Leu	Lys	Asn	Ala	Leu	Gln	Arg	Ala	Val	Glu	
			260					265					270			
Arg	Gly	Gln	Leu	Glu	Gln	Ile	Thr	Gly	Lys	Gly	Ala	Ser	Gly	Thr	Phe	
		275					280					285				
Gln	Leu	Lys	Lys	Ser	Gly	Glu	Lys	Pro	Leu	Leu	Gly	Gly	Ser	Leu	Met	
	290					295					300					
Glu	Tyr	Ala	Ile	Leu	Ser	Ala	Ile	Ala	Ala	Met	Asn	Glu	Pro	Lys	Thr	
305				310						315				320		
Cys	Ser	Thr	Thr	Ala	Leu	Lys	Lys	Tyr	Val	Leu	Glu	Asn	His	Pro	Gly	
				325					330					335		
Thr	Asn	Ser	Asn	Tyr	Gln	Met	His	Leu	Leu	Lys	Lys	Thr	Leu	Gln	Lys	
			340					345					350			
Cys	Glu	Lys	Asn	Gly	Trp	Met	Glu	Gln	Ile	Ser	Gly	Lys	Gly	Phe	Ser	
		355					360					365				
Gly	Thr	Phe	Gln	Leu	Cys	Phe	Pro	Tyr	Tyr	Pro	Ser	Pro	Gly	Val	Leu	
	370					375					380					
Phe	Pro	Lys	Lys	Glu	Pro	Asp	Asp	Ser	Arg	Asp	Glu	Asp	Glu	Asp	Glu	
385				390						395				400		

465		470		475		480									
Pro	Ser	Gly	Gly	Ser	Ser	Lys	Lys	Pro	Ala	Thr	Ser	Ala	Arg	Lys	Glu
				485				490						495	
Val	Lys	Leu	Pro	Gly	Lys	Gly	Lys	Ser	Thr	Met	Lys	Lys	Ser	Phe	Arg
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Val	Lys	Lys													
			515												

<210> 4549
 <211> 2927
 <212> DNA
 <213> Homo sapiens

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 240
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<211> 908

<212> PRT

<213> Homo sapiens

<400> 4550

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3746

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	805	810
Ala Ile Ala His Gly Val Thr Thr Ser Leu Val Asn Phe Phe Met Thr		815
	820	825
Leu Trp Ile Ser Arg Asp Thr Ala Gly Pro Ala Ser Phe Ser Asp His		830
	835	840
Gln Ser Phe Ala Val Val Val Ala Leu Ser Cys Leu Leu Ser Ile Thr		845
	850	855
Met Glu Val Ile Leu Ile Ile Lys Tyr Trp Thr Ala Leu Cys Val Ala		860
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Thr Ile Leu Leu Ser Leu Gly Phe Tyr Ala Ile Met Thr Thr Thr Thr		880
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<211> 361

<212> DNA

<213> Homo sapiens

<400> 4551

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<212> PRT

<213> Homo sapiens

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	35	40
Cys Ser Gln Gln Gly Arg Gln Gly Arg Ala Pro Arg Arg Asp Pro Thr		45
	50	55
Gln Arg Thr Trp Glu Ser Gly Cys Gln Arg Trp Ala Ala Gly Arg Ala		60

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 <212> PRT
 <213> Homo sapiens

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 Tyr Asp Asn Arg Leu Ile Lys Val Pro His Val Ala Leu Gln Lys Val
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<400> 4555

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<211> 67

<212> PRT

<213> Homo sapiens

<400> 4556

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Gly	Leu	Lys	Leu	Ala	Leu	Cys	Gly	Thr	Val	Leu	Asp	His	Leu	Val	Gly
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<210> 4558
 <211> 148
 <212> PRT
 <213> Homo sapiens

<400> 4558
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 Glu Thr Ser Arg Ala Phe Leu Pro Pro Pro Ser Asp Val Arg Val Arg
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 Ser Cys Leu Tyr His Trp Ser Ala Thr Ala His Leu Pro Pro Leu Ser
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 Lys Lys Pro Pro Cys Thr Ile Ser His Leu Arg Pro Leu Leu Gly Leu
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 Cys Met His Trp Pro Pro Pro Ser Asp Ala Pro Cys Thr Ile Ser Leu
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<212> DNA

<213> Homo sapiens

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Gly Tyr Phe Glu Asn Ile Pro Lys Gly Leu Asp Gln Glu Gly Trp Thr
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Pro Val Ser Cys Met Glu Ala Thr Pro Asn Pro Met Glu Ser Leu Arg

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<211> 4172

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<213> Homo sapiens

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3758

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<212> DNA
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<210> 4566

<211> 247

<212> PRT

<213> Homo sapiens

<400> 4566

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Asn	Ser	Leu	Asp	Gln	Phe	Lys	Ser	Lys	Leu	Arg	Ser	Leu	Ser	Tyr	Ser
			20					25					30		
Glu	Ile	Leu	Arg	Leu	Arg	Gln	Ser	Glu	Arg	Met	Ser	Gln	Asp	Asp	Phe
			35				40					45			
Gln	Ser	Pro	Pro	Ile	Val	Glu	Leu	Arg	Glu	Lys	Ile	Gln	Pro	Glu	Ile
			50			55					60				
Leu	Glu	Leu	Ile	Lys	Gln	Gln	Arg	Leu	Asn	Arg	Leu	Cys	Glu	Gly	Ser
65					70					75				80	
Ser	Phe	Arg	Lys	Ile	Gly	Asn	Arg	Arg	Arg	Gln	Glu	Arg	Phe	Trp	Tyr

	85		90		95
Cys Arg Leu Ala Leu Asn His Lys Val Leu His Tyr Gly Asp Leu Asp					
	100		105		110
Asp Asn Pro Gln Gly Glu Val Thr Phe Glu Ser Leu Gln Glu Lys Ile					
	115		120		125
Pro Val Ala Asp Ile Lys Ala Ile Val Thr Gly Lys Asp Cys Pro His					
	130		135		140
Met Lys Glu Lys Ser Ala Leu Lys Gln Asn Lys Glu Val Leu Glu Leu					
145		150		155	160
Ala Phe Ser Ile Leu Tyr Asp Pro Asp Glu Thr Leu Asn Phe Ile Ala					
	165		170		175
Pro Asn Lys Tyr Glu Tyr Cys Ile Trp Ile Asp Gly Leu Ser Ala Leu					
	180		185		190
Leu Gly Lys Asp Met Ser Ser Glu Leu Thr Lys Ser Asp Leu Asp Thr					
	195		200		205
Leu Leu Ser Met Glu Met Lys Leu Arg Leu Leu Asp Leu Glu Asn Ile					
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Gln Ile Pro Glu Ala Pro Pro Pro Ile Pro Lys Glu Pro Ser Ser Tyr					
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Asp Phe Val Tyr His Tyr Gly					
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<210> 4567

<211> 1211

<212> DNA

<213> Homo sapiens

<400> 4567

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420
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780

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<210> 4568
 <211> 120
 <212> PRT
 <213> Homo sapiens

<400> 4568
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 35 40 45
 Val Gln Gln Arg Glu Leu Ala Val Thr Ser Pro Lys Asp Gly Ser Ile
 50 55 60
 Ser Ile Leu Gly Ser Asp Asp Ala Thr Thr Cys His Ile Val Val Leu
 65 70 75 80
 Arg His Thr Gly Asn Gly Ala Thr Cys Leu Thr His Cys Asp Gly Thr
 85 90 95
 Asp Thr Lys Ala Glu Val Pro Leu Ile Met Asn Ser Ile Lys Ser Phe
 100 105 110
 Ser Asp His Ala Gln Cys Gly Arg
 115 120

<210> 4569
 <211> 1797
 <212> DNA
 <213> Homo sapiens

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 120
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 180
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 240

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720
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<210> 4570

<211> 141

<212> PRT

<213> Homo sapiens

<400> 4570

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Met Leu Leu Tyr Leu Phe Arg Arg Ala Ala Ser Ile Thr Leu Ala Thr
      20             25             30
Gln Thr Trp His Ile Arg Phe Gly Asp Asn Gly Leu Gly Thr Leu Met
      35             40             45
Leu Leu Gly Pro Gly Glu Thr Val Leu Arg Gln Lys Leu Gly Val Gln
      50             55             60
Gly Gly Pro Arg Val Arg His Cys Gly Glu Gly Asn Ala Gly Glu Ser
65             70             75             80
Gly Pro Thr Leu Gln Leu Gly Thr Arg Gly Arg Lys Gln Arg Gly Gln
      85             90             95
Ala Ser Val Pro Leu Pro Gln Glu Gln Thr Ser Gly Pro Gln Glu Gly
      100            105            110
Leu Gln Ala Ala Arg Ser Leu Pro Ser Ala Gly Gly Ser Arg Gly Arg
      115            120            125
Lys Gly Trp Arg Ala Ala Gly Arg Gln Pro Ser Thr Arg
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<210> 4571

<211> 1084

<212> DNA

<213> Homo sapiens

<400> 4571

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600
aagcagttct cccgggggtga ctttgtggtg gaataccacg gggacctcat cgagatcacc
660
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720

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 1080
 gacc
 1084

<210> 4572
 <211> 126
 <212> PRT
 <213> Homo sapiens

<400> 4572
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 Lys Thr Gln Gln Asn Arg Lys Leu Thr Asp Phe Tyr Pro Val Arg Arg
 20 25 30
 Ser Ser Arg Lys Ser Lys Ala Glu Leu Gln Ser Glu Glu Arg Lys Arg
 35 40 45
 Ile Asp Glu Leu Ile Glu Ser Gly Lys Glu Glu Gly Met Lys Ile Asp
 50 55 60
 Leu Ile Asp Gly Lys Gly Arg Gly Val Ile Ala Thr Lys Gln Phe Ser
 65 70 75 80
 Arg Gly Asp Phe Val Val Glu Tyr His Gly Asp Leu Ile Glu Ile Thr
 85 90 95
 Asp Ala Lys Lys Arg Glu Ala Leu Tyr Ala Gln Asp Pro Ser Thr Gly
 100 105 110
 Cys Tyr Met Tyr Tyr Phe Gln Tyr Leu Ser Lys Thr Tyr Trp
 115 120 125

<210> 4573
 <211> 309
 <212> DNA
 <213> Homo sapiens

<400> 4573
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309

<210> 4574
<211> 103
<212> PRT
<213> Homo sapiens

<400> 4574
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20 25 30
Met Arg Gly Pro Pro Gly Pro Gln Gly Pro Pro Gly Ser Pro Gly Arg
35 40 45
Ala Gly Ala Val Gly Thr Pro Gly Lys Arg Gly Pro Ser Gly Pro Gln
50 55 60
Gly Leu Leu Gly Pro Pro Gly Pro Pro Ala Pro Val Gly Pro Pro His
65 70 75 80
Ala Arg Ile Ser Gln His Gly Asp Pro Leu Leu Ser Asn Thr Phe Thr
85 90 95
Glu Thr Asn Pro Phe Thr Arg
100

<210> 4575
<211> 1068
<212> DNA
<213> Homo sapiens

<400> 4575
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180
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720

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 780
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 840
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 960
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 1068

<210> 4576
 <211> 107
 <212> PRT
 <213> Homo sapiens

<400> 4576
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 20 25 30
 Pro Ala Arg His Val Ala Thr Ala Gln Gly Glu Val Leu Pro Pro Gly
 35 40 45
 Gly Leu Gly Gly Ala Ala Gln Arg Ala Arg Gly Gln Ser His Gly Gly
 50 55 60
 Thr Val Pro Gly Asn Ala Pro Ala Ala Asp Leu Leu Ala Leu Ser Pro
 65 70 75 80
 Arg Leu Glu Arg Ser Gly Thr Ile Ser Thr His Cys Lys Leu Arg Leu
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 Pro Gly Ser Arg His Ser Pro Ala Ser Ala Ser
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<210> 4577
 <211> 3525
 <212> DNA
 <213> Homo sapiens

<400> 4577
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 120
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<210> 4578

<211> 1007

<212> PRT

<213> Homo sapiens

<400> 4578

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      20           25           30
Leu Ala Ser Gly Asp Arg Ser Gly Asn Leu Arg Gln Val Gly Pro Gly
      35           40           45
Ser Val Gln Cys Thr Pro Pro Ser Ser Ser Ser Gly Ser Gln Gly Ser
      50           55           60
Gly Gln Lys Pro Trp Pro Trp His Leu Leu Leu Pro Ile Gly Asn Glu
65           70           75           80
Gly Leu Ile His Glu Leu His Phe Met Asp Glu Leu Val Lys Val Glu
      85           90           95
Ala His Asp Ala Glu Val Leu Cys Leu Glu Tyr Ser Lys Pro Glu Thr
      100          105          110
Gly Leu Thr Leu Leu Ala Ser Ala Ser Arg Asp Arg Leu Ile His Val
      115          120          125
Leu Asn Val Glu Lys Asn Tyr Asn Leu Glu Gln Thr Leu Asp Asp His
      130          135          140
Ser Ser Ser Ile Thr Ala Ile Lys Phe Ala Gly Asn Arg Asp Ile Gln
145          150          155          160
Met Ile Ser Cys Gly Ala Asp Lys Ser Ile Tyr Phe Arg Ser Ala Gln
      165          170          175
Gln Gly Ser Asp Gly Leu His Phe Val Arg Thr His His Val Ala Glu
      180          185          190
Lys Thr Thr Leu Tyr Asp Met Asp Ile Asp Ile Thr Gln Lys Tyr Val
      195          200          205
Ala Val Ala Cys Gln Asp Arg Asn Val Arg Val Tyr Asn Thr Val Asn
      210          215          220
Gly Lys Gln Lys Lys Cys Tyr Lys Gly Ser Gln Gly Asp Glu Gly Ser
225          230          235          240
Leu Leu Lys Val His Val Asp Pro Ser Gly Thr Phe Leu Ala Thr Ser
      245          250          255
Cys Ser Asp Lys Ser Ile Ser Val Ile Asp Phe Tyr Ser Gly Glu Cys
      260          265          270
Ile Ala Lys Met Phe Gly His Ser Gly Gly Cys Ala Ser Leu Leu Gly
      275          280          285
Met Pro Pro His Pro Pro Thr Pro Ser Asp Ser Glu Gly Lys Cys Ser
      290          295          300
Leu Ser Ala Leu Phe Ala Glu Ile Ile Thr Ser Met Lys Phe Thr Tyr
305          310          315          320
Asp Cys His His Leu Ile Thr Val Ser Gly Asp Ser Cys Val Phe Ile
      325          330          335
Trp His Leu Gly Pro Glu Ile Thr Asn Cys Met Lys Gln His Leu Leu
      340          345          350
Glu Ile Asp His Arg Gln Gln Gln Gln His Thr Asn Asp Lys Lys Arg
      355          360          365
Ser Gly His Pro Arg Ser Trp Gln Pro Leu Pro Val His Gln Arg Asp
      370          375          380
Glu Ser Leu Pro Gly Pro His Gly Val Met Leu Gly Thr Gln Ser Ser
385          390          395          400
Leu Pro Ala Asn Gln Arg Gln Ala Ala Thr Val Gly Lys Ala Ala Gly

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3775

835	840	845
Pro Ser Leu Pro Ala Pro Glu Ser Pro Gly Leu Pro Ala His Pro Ser		
850	855	860
Asn Pro Gln Leu Pro Glu Ala Arg Pro Gly Ile Pro Gly Gly Thr Ala		
865	870	875
Ser Leu Leu Glu Pro Thr Ser Gly Trp Gly Thr Ser Cys Thr Gly Cys		
885	890	895
Arg Pro Pro Ser Lys Lys Pro Ser Thr Phe Thr Val Cys Trp Ser Pro		
900	905	910
Val Ala Arg Trp Thr Pro Gly Ser Ser Arg His Gly Leu Ser Trp Ser		
915	920	925
Pro Pro Ser Cys Gly Ser Thr Ala Ser Trp Arg Leu Asn Ala Trp Trp		
930	935	940
Gly Leu Val Trp Pro Gln Pro Arg Leu Cys Pro Ala Gln Asp Pro Arg		
945	950	955
Pro His Arg Arg Cys Thr Pro Trp Pro Ala Gln Thr Cys Arg Pro Cys		
965	970	975
Trp Asn Thr Thr Arg Ser Cys Trp Cys Arg Pro Cys Gly Gly Arg His		
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Gly Gly Thr Glu Gly Ala Ala Pro Pro Pro Gln Pro Cys Cys Phe		
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<210> 4579
 <211> 321
 <212> DNA
 <213> Homo sapiens

<400> 4579
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 120
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 180
 aatgacaaga agcggagtgg cccccccagg caggatacgt atgtgtccac acctagttag
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 300
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 321

<210> 4580
 <211> 107
 <212> PRT
 <213> Homo sapiens

<400> 4580
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 Tyr Asp Cys His His Leu Ile Thr Val Ser Gly Asp Ser Cys Val Phe
 20 25 30
 Ile Trp His Leu Gly Pro Glu Ile Thr Asn Cys Met Lys Gln His Leu
 35 40 45
 Leu Glu Ile Asp His Arg Gln Gln Gln Gln His Thr Asn Asp Lys Lys

50	55	60
Arg Ser Gly Pro Pro Arg Gln Asp Thr Tyr Val Ser Thr Pro Ser Glu		
65	70	75
Ile His Ser Leu Ser Pro Gly Glu Gln Thr Glu Asp Asp Leu Glu Glu		80
	85	90
Glu Cys Glu Pro Glu Glu Met Leu Lys Thr Pro		95
100	105	

<210> 4581

<211> 1396

<212> DNA

<213> Homo sapiens

<400> 4581

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120
cgggagcgca ggtcagattc agaggaagag cgggtggcagc gctcagggat gcgaagccgg
180
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240
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300
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360
gccctgagcc agcagcagag cctgcaggag cggctgcggc tgcgggagga gcggaagcag
420
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1200

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<210> 4582

<211> 354

<212> PRT

<213> Homo sapiens

<400> 4582

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		20						25					30		
Glu	Leu	Met	Lys	Ala	Phe	Glu	Thr	Pro	Glu	Glu	Lys	Arg	Ala	Arg	Arg
		35					40					45			
Leu	Ala	Lys	Lys	Glu	Ala	Lys	Glu	Arg	Lys	Lys	Arg	Glu	Lys	Met	Gly
	50					55					60				
Trp	Gly	Glu	Glu	Tyr	Met	Gly	Tyr	Thr	Asn	Thr	Asp	Asn	Pro	Phe	Gly
65					70					75					80
Asp	Asn	Asn	Leu	Leu	Gly	Thr	Phe	Ile	Trp	Asn	Lys	Ala	Leu	Glu	Lys
			85						90					95	
Lys	Gly	Ile	Ser	His	Leu	Glu	Glu	Lys	Glu	Leu	Lys	Glu	Arg	Asn	Lys
			100					105					110		
Arg	Ile	Gln	Glu	Asp	Asn	Arg	Leu	Glu	Leu	Gln	Lys	Val	Lys	Gln	Leu
	115						120					125			
Arg	Leu	Glu	Arg	Glu	Arg	Glu	Lys	Ala	Met	Arg	Glu	Gln	Glu	Leu	Glu
	130					135					140				
Met	Leu	Gln	Arg	Val	Lys	Gly	Thr	Glu	His	Phe	Lys	Thr	Trp	Glu	Glu
145					150					155					160
Gln	Glu	Asp	Asn	Phe	His	Leu	Gln	Gln	Ala	Lys	Leu	Arg	Ser	Lys	Ile
			165						170					175	
Arg	Ile	Arg	Asp	Gly	Arg	Ala	Lys	Pro	Ile	Asp	Leu	Leu	Ala	Lys	Tyr
		180						185					190		
Ile	Ser	Ala	Glu	Asp	Asp	Asp	Leu	Ala	Gly	Glu	Met	His	Glu	Pro	Tyr
	195						200					205			
Thr	Phe	Leu	Asn	Gly	Leu	Thr	Val	Ala	Asp	Met	Glu	Asp	Leu	Leu	Glu
	210					215					220				
Asp	Ile	Gln	Val	Tyr	Met	Glu	Leu	Glu	Gln	Gly	Lys	Asn	Ala	Asp	Phe
225					230					235					240
Trp	Arg	Asp	Met	Thr	Thr	Ile	Thr	Glu	Asp	Glu	Ile	Ser	Lys	Leu	Arg
			245						250					255	
Lys	Leu	Glu	Ala	Ser	Gly	Lys	Gly	Pro	Gly	Glu	Arg	Arg	Glu	Gly	Val
		260						265					270		
Asn	Ala	Ser	Val	Ser	Ser	Asp	Val	Gln	Ser	Val	Phe	Lys	Gly	Lys	Thr
	275						280					285			
Tyr	Asn	Gln	Leu	Gln	Val	Ile	Phe	Gln	Gly	Ile	Glu	Gly	Lys	Ile	Arg
	290					295					300				
Ala	Gly	Gly	Pro	Asn	Leu	Asp	Met	Gly	Tyr	Trp	Glu	Ser	Leu	Leu	Gln

305		310		315		320									
Gln	Leu	Arg	Ala	His	Met	Ala	Arg	Ala	Arg	Leu	Arg	Glu	Arg	His	Gln
			325						330					335	
Asp	Val	Leu	Arg	Gln	Lys	Leu	Tyr	Lys	Leu	Lys	Gln	Glu	Gln	Gly	Val
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<210> 4583
 <211> 3350
 <212> DNA
 <213> Homo sapiens

<400> 4583
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 180
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 420
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2820

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 aaggaaacaa ccgtgggagc cgtcacagtg acacacaaac aacttacaga cttccacaag
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 3240
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<210> 4584

<211> 923

<212> PRT

<213> Homo sapiens

<400> 4584

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Ala	Leu	Tyr	His	Asp	Pro	Asp	Pro	Ser	Gly	Lys	Glu	Arg	Ala	Ser	Phe
			20					25					30		
Trp	Leu	Gly	Glu	Leu	Gln	Arg	Ser	Val	His	Ala	Trp	Glu	Ile	Ser	Asp
		35					40					45			
Gln	Leu	Leu	Gln	Ile	Arg	Gln	Asp	Val	Glu	Ser	Cys	Tyr	Phe	Ala	Ala
	50					55					60				
Gln	Thr	Met	Lys	Met	Lys	Ile	Gln	Thr	Ser	Phe	Tyr	Glu	Leu	Pro	Thr
65					70					75				80	
Asp	Ser	His	Ala	Ser	Leu	Arg	Asp	Ser	Leu	Leu	Thr	His	Ile	Gln	Asn
				85					90					95	
Leu	Lys	Asp	Leu	Ser	Pro	Val	Ile	Val	Thr	Gln	Leu	Ala	Leu	Ala	Ile
			100					105					110		
Ala	Asp	Leu	Ala	Leu	Gln	Met	Pro	Ser	Trp	Lys	Gly	Cys	Val	Gln	Thr
		115					120					125			
Leu	Val	Glu	Lys	Tyr	Ser	Asn	Asp	Val	Thr	Ser	Leu	Pro	Phe	Leu	Leu
	130					135					140				
Glu	Ile	Leu	Thr	Val	Leu	Pro	Glu	Glu	Val	His	Ser	Arg	Ser	Leu	Arg
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Ile	Gly	Ala	Asn	Arg	Arg	Thr	Glu	Ile	Ile	Glu	Asp	Leu	Ala	Phe	Tyr
			165						170					175	
Ser	Ser	Thr	Val	Val	Ser	Leu	Leu	Met	Thr	Cys	Val	Glu	Lys	Ala	Gly
			180					185					190		
Thr	Asp	Glu	Lys	Met	Leu	Met	Lys	Val	Phe	Arg	Cys	Leu	Gly	Ser	Trp
		195					200					205			
Phe	Asn	Leu	Gly	Val	Leu	Asp	Ser	Asn	Phe	Met	Ala	Asn	Asn	Lys	Leu
	210					215						220			
Leu	Ala	Leu	Leu	Phe	Glu	Val	Leu	Gln	Gln	Asp	Lys	Thr	Ser	Ser	Asn


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225          230          235          240
Leu His Glu Ala Ala Ser Asp Cys Val Cys Ser Ala Leu Tyr Ala Ile
          245          250          255
Glu Asn Val Glu Thr Asn Leu Pro Leu Ala Met Gln Leu Phe Gln Gly
          260          265          270
Val Leu Thr Leu Glu Thr Ala Tyr His Met Ala Val Ala Arg Glu Asp
          275          280          285
Leu Asp Lys Val Leu Asn Tyr Cys Arg Ile Phe Thr Glu Leu Cys Glu
          290          295          300
Thr Phe Leu Glu Lys Ile Val Cys Thr Pro Gly Gln Gly Leu Gly Asp
305          310          315          320
Leu Arg Thr Leu Glu Leu Leu Leu Ile Cys Ala Gly His Pro Gln Tyr
          325          330          335
Glu Val Val Glu Ile Ser Phe Asn Phe Trp Tyr Arg Leu Gly Glu His
          340          345          350
Leu Tyr Lys Thr Asn Asp Glu Val Ile His Gly Ile Phe Lys Ala Tyr
          355          360          365
Ile Gln Arg Leu Leu His Ala Leu Ala Arg His Cys Gln Leu Glu Pro
          370          375          380
Asp His Glu Gly Val Pro Glu Glu Thr Asp Asp Phe Gly Glu Phe Arg
385          390          395          400
Met Arg Val Ser Asp Leu Val Lys Asp Leu Ile Phe Leu Ile Gly Ser
          405          410          415
Met Glu Cys Phe Ala Gln Leu Tyr Ser Thr Leu Lys Glu Gly Asn Pro
          420          425          430
Pro Trp Glu Val Thr Glu Ala Val Leu Phe Ile Met Ala Ala Ile Ala
          435          440          445
Lys Ser Val Asp Pro Glu Asn Asn Pro Thr Leu Val Glu Val Leu Glu
          450          455          460
Gly Val Val Arg Leu Pro Glu Thr Val His Thr Ala Val Arg Tyr Thr
465          470          475          480
Ser Ile Glu Leu Val Gly Glu Met Ser Glu Val Val Asp Arg Asn Pro
          485          490          495
Gln Phe Leu Asp Pro Val Leu Gly Tyr Leu Met Lys Gly Leu Cys Glu
          500          505          510
Lys Pro Leu Ala Ser Ala Ala Ala Lys Ala Ile His Asn Ile Cys Ser
          515          520          525
Val Cys Arg Asp His Met Ala Gln His Phe Asn Gly Leu Leu Glu Ile
          530          535          540
Ala Arg Ser Leu Asp Ser Phe Leu Leu Ser Pro Glu Ala Ala Val Gly
545          550          555          560
Leu Leu Lys Gly Thr Ala Leu Val Leu Ala Arg Leu Pro Leu Asp Lys
          565          570          575
Ile Thr Glu Cys Leu Ser Glu Leu Cys Ser Val Gln Val Met Ala Leu
          580          585          590
Lys Lys Leu Leu Ser Gln Glu Pro Ser Asn Gly Ile Ser Ser Asp Pro
          595          600          605
Thr Val Phe Leu Asp Arg Leu Ala Val Ile Phe Arg His Thr Asn Pro
          610          615          620
Ile Val Glu Asn Gly Gln Thr His Pro Cys Gln Lys Val Ile Gln Glu
625          630          635          640
Ile Trp Pro Val Leu Ser Glu Thr Leu Asn Lys His Arg Ala Asp Asn
          645          650          655
Arg Ile Val Glu Arg Cys Cys Arg Cys Leu Arg Phe Ala Val Arg Cys

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				660					665					670		
Val	Gly	Lys	Gly	Ser	Ala	Ala	Leu	Leu	Gln	Pro	Leu	Val	Thr	Gln	Met	
			675					680					685			
Val	Asn	Val	Tyr	His	Val	His	Gln	His	Ser	Cys	Phe	Leu	Tyr	Leu	Gly	
			690				695				700					
Ser	Ile	Leu	Val	Asp	Glu	Tyr	Gly	Met	Glu	Glu	Gly	Cys	Arg	Gln	Gly	
705					710					715					720	
Leu	Leu	Asp	Met	Leu	Gln	Ala	Leu	Cys	Ile	Pro	Thr	Phe	Gln	Leu	Leu	
					725				730					735		
Glu	Gln	Gln	Asn	Gly	Leu	Gln	Asn	His	Pro	Asp	Thr	Val	Asp	Asp	Leu	
			740					745					750			
Phe	Arg	Leu	Ala	Thr	Arg	Phe	Ile	Gln	Arg	Ser	Pro	Val	Thr	Leu	Leu	
			755				760					765				
Arg	Ser	Gln	Val	Val	Ile	Pro	Ile	Leu	Gln	Trp	Ala	Ile	Ala	Ser	Thr	
						775					780					
Thr	Leu	Asp	His	Arg	Asp	Ala	Asn	Cys	Ser	Val	Met	Arg	Phe	Leu	Arg	
785					790					795					800	
Asp	Leu	Ile	His	Thr	Gly	Val	Ala	Asn	Asp	His	Glu	Glu	Asp	Phe	Glu	
					805				810					815		
Leu	Arg	Lys	Glu	Leu	Ile	Gly	Gln	Val	Met	Asn	Gln	Leu	Gly	Gln	Gln	
			820					825					830			
Leu	Val	Ser	Gln	Leu	Leu	His	Thr	Cys	Cys	Phe	Cys	Leu	Pro	Pro	Tyr	
			835				840					845				
Thr	Leu	Pro	Asp	Val	Ala	Glu	Val	Leu	Trp	Glu	Ile	Met	Gln	Val	Asp	
						855					860					
Arg	Pro	Thr	Phe	Cys	Arg	Trp	Leu	Glu	Asn	Ser	Leu	Lys	Gly	Leu	Pro	
865					870					875					880	
Lys	Glu	Thr	Thr	Val	Gly	Ala	Val	Thr	Val	Thr	His	Lys	Gln	Leu	Thr	
					885				890					895		
Asp	Phe	His	Lys	Gln	Val	Thr	Ser	Ala	Glu	Glu	Cys	Lys	Gln	Val	Cys	
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Trp	Ala	Leu	Arg	Asp	Phe	Thr	Arg	Leu	Phe	Arg						
			915				920									

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<210> 4585
<211> 1952
<212> DNA
<213> Homo sapiens
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120
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<211> 530
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 <213> Homo sapiens

<400> 4586

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<212> PRT

<213> Homo sapiens

<400> 4588

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Pro Pro Cys His Ile Val Asp Tyr Arg Thr Arg Trp Ser Gly Ile Arg		
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Pro Gly Ser	Arg Tyr Leu Pro Gln Asn Ser Leu His Lys Trp Pro Gln		
	85	90	95
Ala Cys Ala	Gly Leu Trp Gly Phe Leu Pro Trp Ala Val Val Leu Gly		
	100	105	110
Met Cys Ser	Pro Gln Ala Asp Gly Gln Leu Trp Glu Gly Trp Ser Cys		
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<211> 4783

<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 4594

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			20					25					30		
Phe	Ser	Ser	Phe	Ala	Ser	Gln	Ala	Ser	Gly	Ser	Ser	Ser	Ser	Ala	Thr
			35				40						45		
Thr	Val	Thr	Ser	Lys	Val	Ala	Pro	Ser	Trp	Pro	Glu	Ser	His	Ser	Ser
			50			55					60				
Ala	Asp	Ser	Ala	Ser	Leu	Ala	Lys	Lys	Lys	Pro	Leu	Phe	Ile	Thr	Thr
65					70					75				80	
Asp	Ser	Ser	Lys	Leu	Val	Ser	Gly	Val	Leu	Gly	Ser	Ala	Leu	Thr	Ser
			85						90					95	
Gly	Gly	Pro	Ser	Leu	Ser	Ala	Met	Gly	Asn	Gly	Arg	Ser	Ser	Ser	Pro
			100					105					110		
Thr	Ser	Ser	Leu	Thr	Gln	Pro	Ile	Glu	Met	Pro	Thr	Leu	Ser	Ser	Ser
			115			120						125			
Pro	Thr	Glu	Glu	Arg	Pro	Thr	Val	Gly	Pro	Gly	Gln	Gln	Asp	Asn	Pro
			130			135					140				
Leu	Leu	Lys	Thr	Phe	Ser	Asn	Val	Phe	Gly	Arg	His	Ser	Gly	Gly	Phe
145				150					155					160	
Leu	Ser	Ser	Pro	Ala	Asp	Phe	Ser	Gln	Glu	Asn	Lys	Ala	Pro	Phe	Glu
			165					170						175	
Ala	Val	Lys	Arg	Phe	Ser	Leu	Asp	Glu	Arg	Ser	Leu	Ala	Cys	Arg	Gln

			180					185				190					
Asp	Ser	Asp	Ser	Ser	Thr	Asn	Ser	Asp	Leu	Ser	Asp	Leu	Ser	Asp	Ser		
		195					200					205					
Glu	Glu	Gln	Leu	Gln	Ala	Lys	Thr	Gly	Leu	Lys	Gly	Ile	Pro	Glu	His		
	210					215					220						
Leu	Met	Gly	Lys	Leu	Gly	Pro	Asn	Gly	Glu	Arg	Ser	Ala	Glu	Leu	Leu		
225					230					235					240		
Leu	Gly	Lys	Ser	Lys	Gly	Lys	Gln	Ala	Pro	Lys	Gly	Arg	Pro	Arg	Thr		
			245						250						255		
Ala	Pro	Leu	Lys	Val	Gly	Gln	Ser	Val	Leu	Lys	Asp	Val	Ser	Lys	Val		
			260					265					270				
Lys	Lys	Leu	Lys	Gln	Ser	Gly	Glu	Pro	Phe	Leu	Gln	Asp	Gly	Ser	Cys		
	275					280						285					
Ile	Asn	Val	Ala	Pro	His	Leu	His	Lys	Cys	Arg	Glu	Cys	Arg	Leu	Glu		
	290					295					300						
Arg	Tyr	Arg	Lys	Phe	Lys	Glu	Gln	Glu	Gln	Asp	Asp	Ser	Thr	Val	Ala		
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Cys	Arg	Phe	Phe	His	Phe	Arg	Arg	Leu	Ile	Phe	Thr	Arg	Lys	Gly	Val		
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Leu	Arg	Val	Glu	Gly	Phe	Leu	Ser	Pro	Gln	Gln	Ser	Asp	Pro	Asp	Ala		
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Met	Asn	Leu	Trp	Ile	Pro	Ser	Ser	Ser	Leu	Ala	Glu	Gly	Ile	Asp	Leu		
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Glu	Thr	Ser	Lys	Tyr	Ile	Leu	Ala	Asn	Val	Gly	Asp	Gln	Phe	Cys	Gln		
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Leu	Val	Met	Ser	Glu	Lys	Glu	Ala	Met	Met	Met	Val	Glu	Pro	His	Gln		
385					390					395					400		
Lys	Val	Ala	Trp	Lys	Arg	Ala	Val	Arg	Gly	Val	Arg	Glu	Met	Cys	Asp		
			405						410					415			
Val	Cys	Glu	Thr	Thr	Leu	Phe	Asn	Ile	His	Trp	Val	Cys	Arg	Lys	Cys		
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Gly	Phe	Gly	Val	Cys	Leu	Asp	Cys	Tyr	Arg	Leu	Arg	Lys	Ser	Arg	Pro		
	435					440						445					
Arg	Ser	Glu	Thr	Glu	Glu	Met	Gly	Asp	Glu	Glu	Val	Phe	Ser	Trp	Leu		
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Lys	Cys	Ala	Lys	Gly	Gln	Ser	His	Glu	Pro	Glu	Asn	Leu	Met	Pro	Thr		
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Gln	Ile	Ile	Pro	Gly	Thr	Ala	Leu	Tyr	Asn	Ile	Gly	Asp	Met	Val	His		
			485						490					495			
Ala	Ala	Arg	Gly	Lys	Trp	Gly	Ile	Lys	Ala	Asn	Cys	Pro	Cys	Ile	Ser		
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Arg	Gln	Asn	Lys	Ser	Val	Leu	Arg	Pro	Ala	Val	Thr	Asn	Gly	Met	Ser		
	515							520				525					
Gln	Leu	Pro	Ser	Ile	Asn	Pro	Ser	Ala	Ser	Ser	Gly	Asn	Glu	Thr	Thr		
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Phe	Ser	Gly	Gly	Gly	Gly	Pro	Ala	Pro	Val	Thr	Thr	Pro	Glu	Pro	Asp		
545					550					555					560		
His	Val	Pro	Lys	Ala	Asp	Ser	Thr	Asp	Ile	Arg	Ser	Glu	Glu	Pro	Leu		
			565					570						575			
Lys	Thr	Asp	Ser	Ser	Ala	Ser	Asn	Ser	Asn	Ser	Glu	Leu	Lys	Ala	Ile		
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Arg	Pro	Pro	Cys	Pro	Asp	Thr	Ala	Pro	Pro	Ser	Ser	Ala	Leu	His	Trp		
	595						600					605					
Leu	Ala	Asp	Leu	Ala	Thr	Gln	Lys	Ala	Lys	Glu	Glu	Thr	Lys	Glu	Ala		

610	615	620
Gly Ser Leu Arg Ser Val	Leu Asn Lys Glu Ser His Ser Pro Phe Gly	
625	630	635
Leu Asp Ser Phe Asn Ser Thr Ala Lys Val Ser Pro Leu Thr Pro Lys		640
	645	650
Leu Phe Asn Ser Leu Leu Leu Gly Pro Thr Ala Ser Asn Asn Lys Thr		655
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Glu Gly Ser Ser Leu Arg Asp Leu Leu His Ser Gly Pro Gly Lys Leu		670
	675	680
Pro Gln Thr Pro Leu Asp Thr Gly Ile Pro Phe Pro Pro Val Phe Ser		685
	690	695
Thr Ser Ser Ala Gly Val Lys Ser Lys Ala Ser Leu Pro Asn Phe Leu		700
705	710	715
Asp His Ile Ile Ala Ser Val Val Glu Asn Lys Lys Thr Ser Asp Ala		720
	725	730
Ser Lys Arg Ala Cys Asn Leu Thr Asp Thr Gln Lys Glu Val Lys Glu		735
	740	745
Met Val Met Gly Leu Asn Val Leu Asp Pro His Thr Ser His Ser Trp		750
	755	760
Leu Cys Asp Gly Arg Leu Leu Cys Leu His Asp Pro Ser Asn Lys Asn		765
	770	775
Asn Trp Lys Ile Phe Arg Glu Cys Trp Lys Gln Gly Gln Pro Val Leu		780
785	790	795
Val Ser Gly Val His Lys Lys Leu Lys Ser Glu Leu Trp Lys Pro Glu		800
	805	810
Ala Phe Ser Gln Glu Phe Gly Asp Gln Asp Val Asp Leu Val Asn Cys		815
	820	825
Arg Asn Cys Ala Ile Ile Ser Asp Val Lys Val Arg Asp Phe Trp Asp		830
	835	840
Gly Phe Glu Ile Ile Cys Lys Arg Leu Arg Ser Glu Asp Gly Gln Pro		845
	850	855
Met Val Leu Lys Leu Lys Asp Trp Pro Pro Gly Glu Asp Phe Arg Asp		860
865	870	875
Met Met Pro Thr Arg Phe Glu Asp Leu Met Glu Asn Leu Pro Leu Pro		880
	885	890
Glu Tyr Thr Lys Arg Asp Gly Arg Leu Asn Leu Ala Ser Arg Leu Pro		895
	900	905
Ser Tyr Phe Val Arg Pro Asp Leu Gly Pro Lys Met Tyr Asn Ala Tyr		910
	915	920
Gly Leu Ile Thr Ala Glu Asp Arg Arg Val Gly Thr Thr Asn Leu His		925
	930	935
Leu Asp Val Ser Asp Ala Val Asn Val Met Val Tyr Val Gly Ile Pro		940
945	950	955
Ile Gly Glu Gly Ala His Asp Glu Glu Val Leu Lys Thr Ile Asp Glu		960
	965	970
Gly Asp Ala Asp Glu Val Thr Lys Gln Arg Ile His Asp Gly Lys Glu		975
	980	985
Lys Pro Gly Ala Leu Trp His Ile Tyr Ala Ala Lys Asp Ala Glu Lys		990
	995	1000
Ile Arg Glu Leu Leu Arg Lys Val Gly Glu Glu Gln Gly Gln Glu Asn		1005
1010	1015	1020
Pro Pro Asp His Asp Pro Ile His Asp Gln Ser Trp Tyr Leu Asp Gln		1025
1025	1030	1035
Thr Leu Arg Lys Arg Leu Tyr Glu Glu Tyr Gly Val Gln Gly Trp Ala		1040

	1045	1050	1055
Ile Val Gln Phe Leu Gly Asp Ala Val Phe Ile Pro Ala Gly Ala Pro			
	1060	1065	1070
His Gln Val His Asn Leu Tyr Ser Cys Ile Lys Val Ala Glu Asp Phe			
	1075	1080	1085
Val Ser Pro Glu His Val Lys His Cys Phe Arg Leu Thr Gln Glu Phe			
	1090	1095	1100
Arg His Leu Ser Asn Thr His Thr Asn His Glu Asp Lys Leu Gln Val			
1105	1110	1115	1120
Lys Asn Ile Ile Tyr His Ala Val Lys Asp Ala Val Gly Thr Leu Lys			
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Ala His Glu Ser Lys Leu Ala Arg Ser			
	1140	1145	

<210> 4595

<211> 935

<212> DNA

<213> Homo sapiens

<400> 4595

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120
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180
ccgccttca gccagatgcg cctcagggtct ttctcgaact tgatctgctt gcgtctcagg
240
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420
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720
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780
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840
ctggaccccg ggcccgccnn tgccgcagcy cccggcgccc tcaggcctcc cgctgaccct
900
tcccaagccc gacctcgacg cggctcaaat tgacc
935

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<210> 4596

<211> 169
 <212> PRT
 <213> Homo sapiens

<400> 4596
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 Phe Leu Gly Thr Ser Ile Ser Ser Ser Ser Trp Ala Pro Leu Arg
 35 40 45
 Gly Arg Glu Ala Ala Leu Pro Gly Pro Ala Gly Asp Xaa Ala Val Lys
 50 55 60
 Gly Pro Ala Asp Pro Ala Ala Gln His Ser Arg Asp Gly Gln Gly Gly
 65 70 75 80
 Trp Pro Pro Ala Gln Gly Thr Ala Ser Thr Ala Gly Lys Ser Gly Ala
 85 90 95
 Pro Gly Ala Trp Ser Val Gly Gly Ala Thr Gly Pro Arg Gly Ala Lys
 100 105 110
 Gly Pro Arg Thr Gly Arg Pro Ala Pro Ser Pro Gly Ser Pro Pro Arg
 115 120 125
 Glu Ser Arg Cys Leu Ala Pro Gly Pro Ser Arg Leu Asp Pro Gly Pro
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 Ala Xaa Ala Ala Ala Pro Gly Ala Leu Arg Pro Pro Ala Asp Pro Ser
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 Gln Ala Arg Pro Arg Arg Gly Ser Asn
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<210> 4597
 <211> 515
 <212> DNA
 <213> Homo sapiens

<400> 4597
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 515

<210> 4598

<211> 135
 <212> PRT
 <213> Homo sapiens

<400> 4598
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 20 25 30
 Pro Gly Pro Trp Gly Val Gly Arg Gly Thr Cys Leu Thr Ala Gln Leu
 35 40 45
 Leu Leu Ser Ala Pro Phe Cys Leu Leu Pro Ala Leu Ser Gln Ala Val
 50 55 60
 Ser Pro Arg Asn Ser Leu Arg Asn Ile Leu Thr Leu Asn Ser Thr Ala
 65 70 75 80
 Glu Pro Ser Ser Trp Glu Ser Arg Glu Arg Pro Leu Gln Ser Arg Asn
 85 90 95
 Val Tyr Ser Ser Ala Ser Phe Ser Glu His Leu Asp Gly Gly Cys Ser
 100 105 110
 Pro Leu Val Leu Gln Ser Leu Ala Arg Arg Ile Ser Ser Thr Trp Leu
 115 120 125
 Val Asp Gln Ser Leu Arg Glu
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<210> 4599
 <211> 2314
 <212> DNA
 <213> Homo sapiens

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 180
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 240
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 360
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 420
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 480
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 540
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 600
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 660
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 720

aaactggcaa aattactgaa actactactt tgggctcaga acgagctgga ccagaagaaa
 780
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 840
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 960
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 2314

<210> 4600
 <211> 228
 <212> PRT
 <213> Homo sapiens

<400> 4600
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 35 40 45
 Phe Arg Met Glu Ser Gly Ile Glu Pro Ser Val Asp Leu Glu Thr Leu
 50 55 60
 Asp Glu Arg Ile Lys Ile Arg Glu Met Ile Leu Lys Gly Gln Ile Gln
 65 70 75 80
 Glu Ala Ile Ala Leu Ile Asn Ser Leu His Pro Glu Leu Leu Asp Thr
 85 90 95
 Asn Arg Tyr Leu Tyr Phe His Leu Gln Gln Gln His Leu Ile Glu Leu
 100 105 110
 Ile Arg Gln Arg Glu Thr Glu Ala Ala Leu Glu Phe Ala Gln Thr Gln
 115 120 125
 Leu Ala Glu Gln Gly Glu Glu Ser Arg Glu Cys Leu Thr Glu Met Glu
 130 135 140
 Arg Thr Leu Ala Leu Leu Ala Phe Asp Ser Pro Glu Glu Ser Pro Phe
 145 150 155 160
 Gly Asp Leu Leu His Thr Met Gln Arg Gln Lys Val Trp Ser Glu Val
 165 170 175
 Asn Gln Ala Val Leu Asp Tyr Glu Asn Arg Glu Ser Thr Pro Lys Leu
 180 185 190
 Ala Lys Leu Leu Lys Leu Leu Leu Trp Ala Gln Asn Glu Leu Asp Gln
 195 200 205
 Lys Lys Val Lys Tyr Pro Lys Met Thr Asp Leu Ser Lys Gly Val Ile
 210 215 220
 Glu Glu Pro Lys
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<210> 4601
 <211> 916
 <212> DNA
 <213> Homo sapiens

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 180
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 240
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 300

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 480
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 540
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 600
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 660
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 720
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 780
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 916

<210> 4602

<211> 305

<212> PRT

<213> Homo sapiens

<400> 4602

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Phe	Leu	Asn	Gly	Glu	Thr	Gln	Ile	Val	Ala	Asp	Glu	Ala	Phe	Cys	Asn
			20					25					30		
Ala	Val	Arg	Ser	Tyr	Tyr	Glu	Val	Phe	Leu	Lys	Ser	Asp	Arg	Val	Ala
			35				40					45			
Arg	Met	Val	Gln	Ser	Gly	Gly	Cys	Ser	Ala	Asn	Asp	Phe	Arg	Glu	Val
	50					55				60					
Phe	Lys	Lys	Asn	Ile	Glu	Lys	Arg	Val	Arg	Ser	Leu	Pro	Glu	Ile	Asp
65				70					75					80	
Gly	Leu	Ser	Lys	Glu	Thr	Val	Leu	Ser	Ser	Trp	Ile	Ala	Lys	Tyr	Asp
			85					90						95	
Ala	Ile	Tyr	Arg	Gly	Glu	Glu	Asp	Leu	Cys	Lys	Gln	Pro	Asn	Arg	Met
			100					105					110		
Ala	Leu	Ser	Ala	Val	Ser	Glu	Leu	Ile	Leu	Ser	Lys	Glu	Gln	Leu	Tyr
			115				120					125			
Glu	Met	Phe	Gln	Gln	Ile	Leu	Gly	Ile	Lys	Lys	Leu	Glu	His	Gln	Leu
	130					135					140				
Leu	Tyr	Asn	Ala	Cys	Gln	Leu	Asp	Asn	Ala	Asp	Glu	Gln	Ala	Ala	Gln
145				150					155					160	
Ile	Arg	Arg	Glu	Leu	Asp	Gly	Arg	Leu	Gln	Leu	Ala	Asp	Lys	Met	Ala
			165					170						175	
Lys	Glu	Arg	Lys	Phe	Pro	Lys	Phe	Ile	Ala	Lys	Asp	Met	Glu	Asn	Met
			180					185					190		
Tyr	Ile	Glu	Glu	Leu	Arg	Ser	Ser	Val	Asn	Leu	Leu	Met	Ala	Asn	Leu

195					200					205					
Glu	Ser	Leu	Pro	Val	Ser	Lys	Gly	Gly	Pro	Glu	Phe	Lys	Leu	Gln	Lys
210					215					220					
Leu	Lys	Arg	Ser	Gln	Asn	Ser	Ala	Phe	Leu	Asp	Ile	Gly	Asp	Glu	Asn
225					230					235					240
Glu	Ile	Gln	Leu	Ser	Lys	Ser	Asp	Val	Val	Leu	Ser	Phe	Thr	Leu	Glu
245					250					255					
Ile	Val	Ile	Met	Glu	Val	Gln	Gly	Leu	Lys	Ser	Val	Ala	Pro	Asn	Arg
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<211> 666

<212> PRT

<213> Homo sapiens

<400> 4604

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<210> 4605

<211> 2998

<212> DNA

<213> Homo sapiens

<400> 4605

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<211> 584

<212> PRT

<213> Homo sapiens

<400> 4606

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Phe	Ala	Glu	Asn	Gln	Val	Gly	Lys	Asp	Glu	Met	Arg	Val	Arg	Val	Lys
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Val	Val	Thr	Ala	Pro	Ala	Thr	Ile	Arg	Asn	Lys	Thr	Cys	Leu	Ala	Val
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Gln	Val	Pro	Tyr	Gly	Asp	Val	Val	Thr	Val	Ala	Cys	Glu	Ala	Lys	Gly
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Glu	Pro	Met	Pro	Lys	Val	Thr	Trp	Leu	Ser	Pro	Thr	Asn	Lys	Val	Ile
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Pro Pro Gly Ala Gly	Gln Gly Arg Phe Ser	Trp Thr Leu Pro Asn Gly
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Asn Gly Thr Leu Thr	Val Arg Glu Ala Ser	Val Phe Asp Arg Gly Thr
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Tyr Val Cys Arg Met	Glu Thr Glu Tyr Gly	Pro Ser Val Thr Ser Ile
465	470	475
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485	490	495
Pro Val Ile Tyr Thr	Arg Pro Gly Asn Thr	Val Lys Leu Asn Cys Met
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Ala Met Gly Ile Pro	Lys Ala Asp Ile Thr	Trp Glu Leu Pro Asp Lys
515	520	525
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530	535	540
Leu His Pro Gln Gly	Ser Leu Thr Ile Gln	His Ala Thr Gln Arg Asp
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<211> 456

<212> DNA

<213> Homo sapiens

<400> 4607

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<213> Homo sapiens

<400> 4608

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Phe	Gln	Met	Thr	Gln	Glu	Val	Val	Cys	Asp	Glu	Cys	Pro	Asn	Val	Lys
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Asp	Gly	Xaa	Pro	Gly	Asp	Leu	Arg	Phe	Arg	Ile	Lys	Val	Val	Lys	His
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<210> 4609

<211> 904

<212> DNA

<213> Homo sapiens

<400> 4609

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<210> 4610
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 <212> PRT
 <213> Homo sapiens

<400> 4610
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 35 40 45
 Gly Gly Thr Lys Val Pro Leu Glu Ala Arg Pro Val Arg Phe Leu Asp
 50 55 60
 Asn Phe Ser Ser Gly Arg Arg Gly Ala Thr Ser Ala Glu Ala Phe Leu
 65 70 75 80
 Ala Ala Gly Tyr Gly Val Leu Phe Leu Tyr Arg Ala Arg Ser Ala Phe
 85 90 95
 Pro Tyr Ala His Arg Phe Pro Pro Gln Thr Trp Leu Ser Ala Leu Arg
 100 105 110
 Pro Ser Gly Pro Ala Leu Ser Gly Leu Leu Ser Leu Glu Ala Glu Glu
 115 120 125
 Asn Ala Leu Pro Gly Phe Ala Glu Ala Leu Arg Ser Tyr Gln Glu Ala
 130 135 140
 Ala Ala Ala Gly Thr Phe Leu Ala Val Glu Phe Thr Thr Leu Ala Asp
 145 150 155 160
 Tyr Leu His Leu Leu Gln Ala Ala Ala Gln Ala Leu Asn Pro Leu Gly
 165 170 175
 Pro Ser Ala Met Phe Tyr Leu Ala Ala Ala Val Ser Asp Phe Tyr Val
 180 185 190
 Pro Val Ser Glu Met Pro Glu His Lys Ile Gln Ser Ser Gly Gly Pro

		195				200				205						
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Glu	Glu	Ile	Asn	Pro	Leu	Ala	Thr	Thr	Glu	Glu	Gln	Leu	Cys	Leu	Val	
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<212> DNA
<213> Homo sapiens
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1200

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<210> 4612

<211> 532

<212> PRT

<213> Homo sapiens

<400> 4612

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			20					25					30		
Ala	Ala	Ala	Ala	Ile	Ala	Val	Ala	Ala	Ala	Glu	Glu	Glu	Arg	Arg	Leu
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Arg	Gln	Arg	Asn	Arg	Leu	Arg	Leu	Glu	Glu	Asp	Lys	Pro	Ala	Val	Glu
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65					70				75					80	
Ala	Leu	Leu	Arg	Arg	Leu	Arg	Gly	Pro	Arg	Val	Gln	Glu	His	Glu	Asp
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Ser	Gly	Asp	Ser	Glu	Val	Glu	Asn	Glu	Ala	Lys	Gly	Asn	Phe	Pro	Pro
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Gln	Lys	Lys	Pro	Val	Trp	Val	Asp	Glu	Glu	Asp	Glu	Asp	Glu	Glu	Met
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Val	Asp	Met	Met	Asn	Asn	Arg	Phe	Arg	Lys	Asp	Met	Met	Lys	Asn	Ala
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				165					170					175			
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			180					185					190				
Leu	Leu	Gln	Arg	Thr	Gly	Asn	Phe	Ile	Ser	Thr	Ser	Thr	Ser	Leu	Pro		
		195					200						205				
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	210					215					220						
Pro	Thr	Val	Ala	Arg	Ile	Ser	Ser	Val	Gln	Phe	His	Pro	Gly	Ala	Gln		
225					230					235					240		
Ile	Val	Met	Val	Ala	Gly	Leu	Asp	Asn	Ala	Val	Ser	Leu	Phe	Gln	Val		
				245				250						255			
Asp	Gly	Lys	Thr	Asn	Pro	Lys	Ile	Gln	Ser	Ile	Tyr	Leu	Glu	Arg	Phe		
			260					265					270				
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Thr	Ser	Thr	His	Ser	Lys	Val	Leu	Tyr	Val	Tyr	Asp	Met	Leu	Ala	Gly		
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Lys	Leu	Ile	Pro	Val	His	Gln	Val	Arg	Gly	Leu	Lys	Glu	Lys	Ile	Val		
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Ile	Ala	Gly	Tyr	Leu	His	Leu	Leu	Ala	Met	Lys	Thr	Lys	Glu	Leu	Ile		
			340					345					350				
Gly	Ser	Met	Lys	Ile	Asn	Gly	Arg	Val	Ala	Ala	Ser	Thr	Phe	Ser	Ser		
	355					360						365					
Asp	Ser	Lys	Lys	Val	Tyr	Ala	Ser	Ser	Gly	Asp	Gly	Glu	Val	Tyr	Val		
	370					375					380						
Trp	Asp	Val	Asn	Ser	Arg	Lys	Cys	Leu	Asn	Arg	Phe	Val	Asp	Glu	Gly		
385					390					395					400		
Ser	Leu	Tyr	Gly	Leu	Ser	Ile	Ala	Thr	Ser	Arg	Asn	Gly	Gln	Tyr	Val		
				405				410						415			
Ala	Cys	Gly	Ser	Asn	Cys	Gly	Val	Val	Asn	Ile	Tyr	Asn	Gln	Asp	Ser		
			420					425					430				
Cys	Leu	Gln	Glu	Thr	Asn	Pro	Lys	Pro	Ile	Lys	Ala	Ile	Met	Asn	Leu		
	435						440						445				
Val	Thr	Gly	Val	Thr	Ser	Leu	Thr	Phe	Asn	Pro	Thr	Thr	Glu	Ile	Leu		
	450					455					460						
Ala	Ile	Ala	Ser	Glu	Lys	Met	Lys	Glu	Ala	Val	Arg	Leu	Val	His	Leu		
465					470					475					480		
Pro	Ser	Cys	Thr	Val	Phe	Ser	Asn	Phe	Pro	Val	Ile	Lys	Asn	Lys	Asn		
				485				490						495			
Ile	Ser	His	Val	His	Thr	Met	Asp	Phe	Ser	Pro	Arg	Ser	Gly	Tyr	Phe		
			500					505					510				
Ala	Leu	Gly	Asn	Glu	Lys	Gly	Lys	Ala	Leu	Met	Tyr	Arg	Leu	His	His		
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Tyr	Ser	Asp	Phe														
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<210> 4613

<211> 454

<212> DNA

<213> Homo sapiens

<400> 4613

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 180
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<210> 4614
 <211> 117
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 <213> Homo sapiens

<400> 4614
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 35 40 45
 Asp Phe Leu Ile Phe Thr Thr Gln Ile Leu Thr Ile Leu Gln Leu Arg
 50 55 60
 Ser Leu Asn Ile Ile Tyr Asn Lys Gln Asn Leu Val Asn Leu Gln Lys
 65 70 75 80
 Ser Asn Ala Leu Lys Lys His Gln Ser Leu Cys Met Cys Arg Thr Asp
 85 90 95
 Pro Ala Pro Gln Gly Asn Thr Ala Gly Thr Val Pro Arg Thr Leu Thr
 100 105 110
 Ser Val Ser Leu Leu
 115

<210> 4615
 <211> 1350
 <212> DNA
 <213> Homo sapiens

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 180
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 240

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 1350

<210> 4616

<211> 188

<212> PRT

<213> Homo sapiens

<400> 4616

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			20						25					30	
Arg	Lys	Asp	Met	Asp	Glu	Val	Glu	Glu	Lys	Ser	Lys	Asp	Val	Ile	Asn
		35					40					45			
Phe	Thr	Ala	Glu	Lys	Leu	Ser	Val	Asp	Glu	Val	Ser	Gln	Leu	Val	Ile
	50					55					60				
Ser	Pro	Leu	Cys	Gly	Ala	Ile	Ser	Leu	Phe	Val	Gly	Thr	Thr	Arg	Asn

65					70					75					80
Asn	Phe	Glu	Gly	Lys	Lys	Val	Ile	Ser	Leu	Glu	Tyr	Glu	Ala	Tyr	Leu
				85					90					95	
Pro	Met	Ala	Glu	Asn	Glu	Val	Arg	Lys	Ile	Cys	Ser	Asp	Ile	Arg	Gln
			100					105					110		
Lys	Trp	Pro	Val	Lys	His	Ile	Ala	Val	Phe	His	Leu	Leu	Gly	Leu	Val
		115				120						125			
Pro	Val	Ser	Glu	Ala	Ser	Thr	Val	Ile	Ala	Val	Ser	Ser	Ala	His	Arg
	130					135					140				
Ala	Ala	Ser	Leu	Glu	Ala	Val	Ser	Tyr	Ala	Ile	Asp	Ser	Leu	Lys	Ala
145					150					155				160	
Lys	Val	Pro	Ile	Trp	Lys	Lys	Glu	Ile	Tyr	Glu	Glu	Ser	Ser	Thr	Trp
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<210> 4617

<211> 2266

<212> DNA

<213> Homo sapiens

<400> 4617

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960

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 2266

<210> 4618

<211> 197

<212> PRT

<213> Homo sapiens

<400> 4618

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<210> 4619
<211> 539
<212> DNA
<213> Homo sapiens
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<210> 4620
<211> 103
<212> PRT
<213> Homo sapiens
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<400> 4620

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          20           25           30
Leu Gln Ala Arg Pro Asn Pro Arg Phe Pro Gly Arg Cys Thr Pro Gly
          35           40           45
Trp Glu Lys Leu Thr Asn Glu Ser Ser Trp Gln Pro Pro Gln Ala Pro
          50           55           60
Pro Asp Trp Ala Ser Trp Leu Cys Cys Gln Asp Tyr Asp Pro Leu Pro
65           70           75           80
Glu Ser Arg Arg Ser Pro Gln Ala Glu Arg Tyr Arg His Leu Cys Pro
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Tyr Leu Asn Gln Glu Val Pro
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<210> 4621

<211> 2588

<212> DNA

<213> Homo sapiens

<400> 4621

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240
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540
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2460
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2588

<210> 4622
<211> 403
<212> PRT
<213> Homo sapiens

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35 40 45
Ala Arg Ile Thr Ile Ser Glu Gly Ser Cys Pro Glu Arg Ile Thr Thr
50 55 60
Ile Thr Gly Ser Thr Ala Ala Val Phe His Ala Val Ser Met Ile Ala
65 70 75 80
Phe Lys Leu Asp Glu Asp Leu Cys Ala Ala Pro Ala Asn Gly Gly Asn
85 90 95
Val Ser Arg Pro Pro Val Thr Leu Arg Leu Val Ile Pro Ala Ser Gln
100 105 110
Cys Gly Ser Leu Ile Gly Lys Ala Gly Thr Lys Ile Lys Glu Ile Arg
115 120 125
Glu Thr Thr Gly Ala Gln Val Gln Val Ala Gly Asp Leu Leu Pro Asn
130 135 140
Ser Thr Glu Arg Ala Val Thr Val Ser Gly Val Pro Asp Ala Ile Ile
145 150 155 160
Leu Cys Val Arg Gln Ile Cys Ala Val Ile Leu Glu Ser Pro Pro Lys
165 170 175
Gly Ala Thr Ile Pro Tyr His Pro Ser Leu Ser Leu Gly Thr Val Leu
180 185 190
Leu Ser Ala Asn Gln Gly Phe Ser Val Gln Gly Gln Tyr Gly Ala Val
195 200 205
Thr Pro Ala Glu Val Thr Lys Leu Gln Gln Leu Ser Ser His Ala Val
210 215 220
Pro Phe Ala Thr Pro Ser Val Val Pro Gly Leu Asp Pro Gly Thr Gln
225 230 235 240
Thr Ser Ser Gln Glu Phe Leu Val Pro Asn Asp Leu Ile Gly Cys Val
245 250 255
Ile Gly Arg Gln Gly Ser Lys Ile Ser Glu Ile Arg Gln Met Ser Gly
260 265 270
Ala His Ile Lys Ile Gly Asn Gln Ala Glu Gly Ala Gly Glu Arg His
275 280 285
Val Thr Ile Thr Gly Ser Pro Val Ser Ile Ala Leu Ala Gln Tyr Leu
290 295 300
Ile Thr Ala Cys Leu Glu Thr Ala Lys Ser Thr Ser Gly Gly Thr Pro
305 310 315 320
Gly Ser Ala Pro Ala Asp Leu Pro Thr Pro Phe Ser Pro Pro Leu Thr
325 330 335
Ala Leu Pro Thr Ala Pro Pro Gly Leu Leu Gly Thr Pro Tyr Ala Ile
340 345 350
Ser Leu Ser Asn Phe Ile Gly Leu Lys Pro Val Pro Phe Leu Ala Leu

	355		360		365										
Pro	Pro	Ala	Ser	Pro	Gly	Pro	Pro	Pro	Gly	Leu	Ala	Ala	Tyr	Thr	Ala
	370					375					380				
Lys	Met	Ala	Ala	Ala	Asn	Gly	Ser	Lys	Lys	Ala	Glu	Arg	Gln	Lys	Phe
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Ser	Pro	Tyr													

<210> 4623
 <211> 2220
 <212> DNA
 <213> Homo sapiens

<400> 4623
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 420
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 480
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 960
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 1020
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 1080
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 1200

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<210> 4624

<211> 189

<212> PRT

<213> Homo sapiens

<400> 4624

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Leu	Lys	Arg	Lys	Lys	Lys	Lys	Lys	Arg	Lys	Glu	Ser	Gly	Val	Ala	Gly
		20						25					30		
Asp	Pro	Trp	Lys	Glu	Glu	Thr	Asp	Thr	Asp	Leu	Glu	Val	Val	Leu	Glu
		35					40					45			
Lys	Lys	Gly	Asn	Met	Asp	Glu	Ala	His	Ile	Asp	Gln	Val	Arg	Arg	Lys
		50				55					60				
Ala	Leu	Gln	Glu	Glu	Ile	Asp	Arg	Glu	Ser	Gly	Lys	Thr	Glu	Ala	Ser
65					70					75				80	
Glu	Thr	Arg	Lys	Trp	Thr	Gly	Thr	Gln	Phe	Gly	Gln	Trp	Asp	Thr	Ala
			85					90					95		
Gly	Phe	Glu	Asn	Glu	Asp	Gln	Lys	Leu	Lys	Phe	Leu	Arg	Leu	Met	Gly

			100					105					110				
Gly	Phe	Lys	Asn	Leu	Ser	Pro	Ser	Phe	Ser	Arg	Pro	Ala	Ser	Thr	Ile		
		115						120					125				
Ala	Arg	Pro	Asn	Met	Ala	Leu	Gly	Lys	Lys	Ala	Ala	Asp	Ser	Leu	Gln		
		130						135					140				
Gln	Asn	Leu	Gln	Arg	Asp	Tyr	Asp	Arg	Ala	Met	Ser	Trp	Lys	Tyr	Ser		
145					150					155					160		
Arg	Gly	Ala	Gly	Leu	Gly	Phe	Ser	Thr	Ala	Pro	Asn	Lys	Ile	Phe	Tyr		
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<210> 4625

<211> 334

<212> DNA

<213> Homo sapiens

<400> 4625

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120
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180
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334

<210> 4626

<211> 111

<212> PRT

<213> Homo sapiens

<400> 4626

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Asp	Met	Gln	Ala	Leu	Arg	Arg	Glu	Glu	Arg	Arg	Gln	Ala	Glu	Arg			
			20					25					30				
Glu	Gln	Glu	Tyr	Lys	Arg	Lys	Gln	Leu	Glu	Glu	Gln	Arg	Gln	Ser	Glu		
		35					40					45					
Arg	Leu	Gln	Arg	Gln	Leu	Gln	Glu	His	Ala	Tyr	Leu	Lys	Ser	Leu			
50					55					60							
Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Leu	Gln	Lys	Gln	Gln	Gln	Gln	Gln		
65					70					75				80			
Leu	Leu	Pro	Gly	Asp	Arg	Lys	Pro	Leu	Tyr	His	Tyr	Gly	Arg	Gly	Met		
				85					90					95			
Asn	Pro	Ala	Asp	Lys	Pro	Ala	Trp	Ala	Arg	Glu	Gly	Glu	Glu	Arg			
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<210> 4627

<211> 1736

<212> DNA

<213> Homo sapiens

<400> 4627

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120
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180
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240
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300
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1500

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 1736

<210> 4628
 <211> 469
 <212> PRT
 <213> Homo sapiens

<400> 4628
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 Pro Glu Ala Lys Gln Glu Ile Leu Glu Asn Lys Asp Val Val Val Gln
 35 40 45
 His Val His Phe Asp Gly Leu Gly Arg Thr Lys Asp Asp Ile Ile Ile
 50 55 60
 Cys Glu Ile Gly Asp Val Phe Lys Ala Lys Asn Leu Ile Glu Val Met
 65 70 75 80
 Arg Lys Ser His Glu Ala Arg Glu Lys Leu Arg Leu Gly Ile Phe
 85 90 95
 Arg Gln Val Asp Val Leu Ile Asp Thr Cys Gln Gly Asp Gly Ala Leu
 100 105 110
 Pro Asn Gly Leu Asp Val Thr Phe Glu Val Thr Glu Leu Arg Arg Leu
 115 120 125
 Thr Gly Ser Tyr Asn Thr Met Val Gly Asn Asn Glu Gly Ser Met Val
 130 135 140
 Leu Gly Leu Lys Leu Pro Asn Leu Leu Gly Arg Ala Glu Lys Val Thr
 145 150 155 160
 Phe Gln Phe Ser Tyr Gly Thr Lys Glu Thr Ser Tyr Gly Leu Ser Phe
 165 170 175
 Phe Lys Pro Arg Pro Gly Asn Phe Glu Arg Asn Phe Ser Val Asn Leu
 180 185 190
 Tyr Lys Val Thr Gly Gln Phe Pro Trp Ser Ser Leu Arg Glu Thr Asp
 195 200 205
 Arg Gly Met Ser Ala Glu Tyr Ser Phe Pro Ile Trp Lys Thr Ser His
 210 215 220
 Thr Val Lys Trp Glu Gly Val Trp Arg Glu Leu Gly Cys Leu Ser Arg
 225 230 235 240
 Thr Ala Ser Phe Ala Val Arg Lys Glu Ser Gly His Ser Leu Lys Ser
 245 250 255
 Ser Leu Ser His Ala Met Val Ile Asp Ser Arg Asn Ser Ser Ile Leu
 260 265 270
 Pro Arg Arg Gly Ala Leu Leu Lys Val Asn Gln Glu Leu Ala Gly Tyr
 275 280 285
 Thr Gly Gly Asp Val Ser Phe Ile Lys Glu Asp Phe Glu Leu Gln Leu
 290 295 300
 Asn Lys Gln Leu Ile Phe Asp Ser Val Phe Ser Ala Ser Phe Trp Gly

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Gly	Met	Leu	Val	Pro	Ile	Gly	Asp	Lys	Pro	Ser	Ser	Ile	Ala	Asp	Arg			
					325						330						335	
Phe	Tyr	Leu	Gly	Gly	Pro	Thr	Ser	Val	Arg	Gly	Phe	Ser	Met	His	Ser			
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Ile	Gly	Pro	Gln	Ser	Glu	Gly	Asp	Tyr	Leu	Gly	Gly	Glu	Ala	Tyr	Trp			
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Ala	Gly	Gly	Leu	His	Leu	Tyr	Thr	Pro	Leu	Pro	Phe	Arg	Pro	Gly	Gln			
					370						375						380	
Gly	Gly	Phe	Gly	Glu	Leu	Phe	Arg	Thr	His	Phe	Phe	Leu	Asn	Ala	Gly			
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Asn	Leu	Cys	Asn	Leu	Asn	Tyr	Gly	Glu	Gly	Pro	Lys	Ala	His	Ile	Arg			
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Lys	Leu	Ala	Glu	Cys	Ile	Arg	Trp	Ser	Tyr	Gly	Ala	Gly	Ile	Val	Leu			
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Arg	Leu	Gly	Asn	Ile	Ala	Arg	Leu	Glu	Leu	Asn	Tyr	Cys	Val	Pro	Met			
					435						440						445	
Gly	Val	Gln	Thr	Gly	Asp	Arg	Ile	Cys	Asp	Gly	Val	Gln	Phe	Gly	Ala			
					450						455						460	
Gly	Ile	Arg	Phe	Leu														
465																		

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<210> 4629
<211> 706
<212> DNA
<213> Homo sapiens
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240
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706

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<210> 4630

<211> 140
 <212> PRT
 <213> Homo sapiens

<400> 4630
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 35 40 45
 Ser Trp Ala Leu Arg Val Ser Val Phe Pro Gln Ile Gly Lys Met Arg
 50 55 60
 Gly Arg Gly Gly Tyr Trp Gly Gln Ala Ser Ala Gln Pro Trp Val Leu
 65 70 75 80
 Leu Glu Pro Gly Leu Glu Pro Glu Val Gly Arg Val Ser Lys Leu Ser
 85 90 95
 Ser Trp Ile Pro Ile Cys Arg Thr Ala Pro Arg Thr Arg Ser Gly Val
 100 105 110
 Arg Ala His Pro Leu Ala Arg Ile Leu Gly Ser Leu Gly His Lys Ala
 115 120 125
 Gly Gln Gly Thr Arg Asp Pro Pro Thr Gln Glu Thr
 130 135 140

<210> 4631
 <211> 2756
 <212> DNA
 <213> Homo sapiens

<400> 4631
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 120
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<210> 4632

<211> 372

<212> PRT

<213> Homo sapiens

<400> 4632

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			20					25					30		
Asp	Leu	Gln	Ile	Ala	Leu	Ala	Ser	Phe	Tyr	Glu	Asp	Gly	Gly	Asp	Glu
		35					40					45			
Asp	Ile	Val	Thr	Ile	Ser	Gln	Ala	Thr	Pro	Ser	Ser	Val	Ser	Arg	Gly
	50					55					60				
Thr	Ala	Pro	Ser	Asp	Asn	Arg	Val	Thr	Ser	Phe	Arg	Asp	Leu	Ile	His
65					70					75				80	
Asp	Gln	Asp	Glu	Asp	Glu	Glu	Glu	Glu	Glu	Gly	Gln	Arg	Ser	Arg	Phe
			85					90						95	
Tyr	Ala	Gly	Gly	Ser	Glu	Arg	Ser	Gly	Gln	Gln	Ile	Val	Gly	Pro	Pro
		100						105					110		
Arg	Lys	Lys	Ser	Pro	Asn	Glu	Leu	Val	Asp	Asp	Leu	Phe	Lys	Gly	Ala
		115					120					125			
Lys	Glu	His	Gly	Ala	Val	Ala	Val	Glu	Arg	Val	Thr	Lys	Ser	Pro	Gly
	130						135				140				
Glu	Thr	Ser	Lys	Pro	Arg	Pro	Phe	Ala	Gly	Gly	Gly	Tyr	Arg	Leu	Gly
145					150					155				160	
Ala	Ala	Pro	Glu	Glu	Glu	Ser	Ala	Tyr	Val	Ala	Gly	Glu	Lys	Arg	Gln
			165					170						175	
His	Ser	Ser	Gln	Asp	Val	His	Val	Val	Leu	Lys	Leu	Trp	Lys	Ser	Gly
		180						185					190		
Phe	Ser	Leu	Asp	Asn	Gly	Glu	Leu	Arg	Ser	Tyr	Gln	Asp	Pro	Ser	Asn
		195					200					205			
Ala	Gln	Phe	Leu	Glu	Ser	Ile	Arg	Arg	Gly	Glu	Val	Pro	Ala	Glu	Leu
	210					215					220				
Arg	Arg	Leu	Ala	His	Gly	Gly	Gln	Val	Asn	Leu	Asp	Met	Glu	Asp	His
225					230					235				240	
Arg	Asp	Glu	Asp	Phe	Val	Lys	Pro	Lys	Gly	Ala	Phe	Lys	Ala	Phe	Thr
			245						250					255	
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[illegible]

<211> 242
 <212> PRT
 <213> Homo sapiens

<400> 4634

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Met Leu Gln Glu Leu Asp Lys Thr Pro Gly Glu Ser Leu His Gly Tyr
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Arg Ile Cys Ile Gln Ala Ile Leu Gln Asp Lys Pro Lys Ile Ala Thr
 20           25           30
Ala Asn Leu Gly Lys Phe Leu Glu Leu Leu Arg Ser His Gln Ser Arg
 35           40           45
Pro Ala Lys Cys Leu Thr Ile Met Trp Ala Leu Gly Gln Ala Gly Phe
 50           55           60
Ala Asn Leu Thr Glu Gly Leu Lys Val Trp Leu Gly Ile Met Leu Pro
 65           70           75           80
Val Leu Gly Ile Lys Ser Leu Ser Pro Phe Ala Ile Thr Tyr Leu Asp
 85           90           95
Arg Leu Leu Leu Met His Pro Asn Leu Thr Lys Gly Phe Gly Met Ile
 100          105          110
Gly Pro Lys Asp Phe Phe Pro Leu Leu Asp Phe Ala Tyr Met Pro Asn
 115          120          125
Asn Ser Leu Thr Pro Ser Leu Gln Glu Gln Leu Cys Gln Leu Tyr Pro
 130          135          140
Arg Leu Lys Val Leu Ala Phe Gly Ala Lys Pro Asp Ser Thr Leu His
 145          150          155          160
Thr Tyr Phe Pro Ser Phe Leu Ser Arg Ala Thr Pro Ser Cys Pro Pro
 165          170          175
Glu Met Lys Lys Glu Leu Leu Ser Ser Leu Thr Glu Cys Leu Thr Val
 180          185          190
Asp Pro Leu Ser Ala Ser Val Trp Arg Gln Leu Tyr Pro Lys His Leu
 195          200          205
Ser Gln Ser Ser Leu Leu Leu Glu His Leu Leu Ser Ser Trp Glu Gln
 210          215          220
Ile Pro Lys Lys Val Gln Lys Ser Leu Gln Glu Thr Ile Gln Ser Leu
 225          230          235          240
Lys Leu

```

<210> 4635
 <211> 384
 <212> DNA
 <213> Homo sapiens

<400> 4635

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agtggggccc gaggaggaag gccggtggtg tgtgggcaga gccagccagt ggtggccttc
180
ctcctcccga agatgagttt tgtagcccag gtgtttgcac actcacactt gctcactccc
240
tcacacacaa aacctcact ctttgctttt tctggggaga gggaggccac tggcagaagc
300

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 360
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 384

<210> 4636
 <211> 108
 <212> PRT
 <213> Homo sapiens

<400> 4636
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 20 25 30
 Lys Glu Val Lys Trp Gly Pro Arg Lys Ala Gly Gly Val Trp Ala
 35 40 45
 Glu Pro Ala Ser Gly Gly Leu Pro Pro Pro Glu Asp Glu Phe Cys Ser
 50 55 60
 Pro Gly Val Cys Thr Leu Thr Leu Ala His Ser Leu Thr His Lys Thr
 65 70 75 80
 Leu Thr Leu Cys Phe Phe Trp Gly Glu Gly Gly His Trp Gln Lys Arg
 85 90 95
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<210> 4637
 <211> 2162
 <212> DNA
 <213> Homo sapiens

<400> 4637
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 agctgcttct ctttcaacca ggactgcaca tccctagcaa ttggaactaa agccgggtat
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 aagctgtttt ctctgagttc tgtggagcag ctggatcaag tccacggaag caatgaaatc
 240
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<210> 4638

<211> 446

<212> PRT

<213> Homo sapiens

<400> 4638

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           20           25           30
Thr Lys Ala Gly Tyr Lys Leu Phe Ser Leu Ser Ser Val Glu Gln Leu
           35           40           45
Asp Gln Val His Gly Ser Asn Glu Ile Pro Asp Val Tyr Ile Val Glu
           50           55           60
Arg Leu Phe Ser Ser Ser Ser Val Val Val Val Ser His Thr Lys Pro
65           70           75           80
Arg Gln Met Asn Val Tyr His Phe Lys Lys Gly Thr Glu Ile Cys Asn
           85           90           95
Tyr Ser Tyr Ser Ser Asn Ile Leu Ser Ile Arg Leu Asn Arg Gln Arg
           100          105          110
Leu Leu Val Cys Leu Glu Glu Ser Ile Tyr Ile His Asn Ile Lys Asp
           115          120          125
Met Lys Leu Leu Lys Thr Leu Leu Asp Ile Pro Ala Asn Pro Thr Gly
           130          135          140
Leu Cys Ala Leu Ser Ile Asn His Ser Asn Ser Tyr Leu Ala Tyr Pro
145          150          155          160
Gly Ser Leu Thr Ser Gly Glu Ile Val Leu Tyr Asp Gly Asn Ser Leu
           165          170          175
Lys Thr Val Cys Thr Ile Ala Ala His Glu Gly Thr Leu Ala Ala Ile
           180          185          190
Thr Phe Asn Ala Ser Gly Ser Lys Leu Ala Ser Ala Ser Glu Lys Gly
           195          200          205
Thr Val Ile Arg Val Phe Ser Val Pro Asp Gly Gln Lys Leu Tyr Glu
           210          215          220
Phe Arg Arg Gly Met Lys Arg Tyr Val Thr Ile Ser Ser Leu Val Phe
225          230          235          240
Ser Met Asp Ser Gln Phe Leu Cys Ala Ser Ser Asn Thr Glu Thr Val
           245          250          255
His Ile Phe Lys Leu Glu Gln Val Thr Asn Ser Arg Pro Glu Glu Pro
           260          265          270
Ser Thr Trp Ser Gly Tyr Met Gly Lys Met Phe Met Ala Ala Thr Asn
           275          280          285
Tyr Leu Pro Thr Gln Val Ser Asp Met Met His Gln Asp Arg Ala Phe
           290          295          300
Ala Thr Ala Arg Leu Asn Phe Ser Gly Gln Arg Asn Ile Cys Thr Leu
305          310          315          320
Ser Thr Ile Gln Lys Leu Pro Arg Leu Leu Val Ala Ser Ser Ser Gly
           325          330          335
His Leu Tyr Met Tyr Asn Leu Asp Pro Gln Asp Gly Gly Glu Cys Val
           340          345          350
Leu Ile Lys Thr His Ser Leu Leu Gly Ser Gly Thr Thr Glu Glu Asn
           355          360          365
Lys Glu Asn Asp Leu Arg Pro Ser Leu Pro Gln Ser Tyr Ala Ala Thr
           370          375          380
Val Ala Arg Pro Ser Ala Ser Ser Ala Ser Thr Val Pro Gly Tyr Ser

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385		390		395		400
Glu Asp Gly Gly Ala Leu Arg Gly Glu Val Ile Pro Glu His Glu Phe						
	405		410		415	
Ala Thr Gly Pro Val Cys Leu Asp Asp Glu Asn Glu Phe Pro Pro Ile						
	420		425		430	
Ile Leu Cys Arg Gly Asn Gln Lys Gly Lys Thr Lys Gln Ser						
	435		440		445	

<210> 4639

<211> 1007

<212> DNA

<213> Homo sapiens

<400> 4639

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720
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<210> 4640

<211> 71

<212> PRT

<213> Homo sapiens

<400> 4640

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      20              25              30
Leu Arg Arg Ser Phe Ala Leu Val Ala Gln Ala Arg Val Gln Trp Arg
      35              40              45
Asp Leu Ser Ser Leu Gln Pro Pro Pro Pro Arg Leu Lys Arg Phe Ser
      50              55              60
His Leu Ser Leu Pro Ser Ser
65              70

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<210> 4641

<211> 1873

<212> DNA

<213> Homo sapiens

<400> 4641

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gggccgaaga aggttgagaa ggtcgacaaa gatgctgaat tagtggccca atggaactat
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tgtactctaa gtcaggaaat attaagacga ccaatagttg cctgtgaact tggcagactt
240
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420
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720
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780
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1080

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 1873

<210> 4642

<211> 306

<212> PRT

<213> Homo sapiens

<400> 4642

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Gly	Pro	Lys	Lys	Val	Glu	Lys	Val	Asp	Lys	Asp	Ala	Glu	Leu	Val	Ala
			20					25					30		
Gln	Trp	Asn	Tyr	Cys	Thr	Leu	Ser	Gln	Glu	Ile	Leu	Arg	Arg	Pro	Ile
		35				40					45				
Val	Ala	Cys	Glu	Leu	Gly	Arg	Leu	Tyr	Asn	Lys	Asp	Ala	Val	Ile	Glu
	50					55					60				
Phe	Leu	Leu	Asp	Lys	Ser	Ala	Glu	Lys	Ala	Leu	Gly	Lys	Ala	Ala	Ser
65					70					75				80	
His	Ile	Lys	Ser	Ile	Lys	Asn	Val	Thr	Glu	Leu	Lys	Leu	Ser	Asp	Asn
			85					90					95		
Pro	Ala	Trp	Glu	Gly	Asp	Lys	Gly	Asn	Thr	Lys	Gly	Asp	Lys	His	Asp
			100					105					110		
Asp	Leu	Gln	Arg	Ala	Arg	Phe	Ile	Cys	Pro	Val	Val	Gly	Leu	Glu	Met
		115					120					125			
Asn	Gly	Arg	His	Arg	Phe	Cys	Phe	Leu	Arg	Cys	Cys	Gly	Cys	Val	Phe
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<212> DNA
<213> Homo sapiens
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<400> 4643
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780

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<210> 4644
 <211> 270
 <212> PRT
 <213> Homo sapiens

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 Gln Glu Asp Asp Met Lys Thr Leu Val Ser Glu Thr Ile Arg Arg Phe
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 Gly Arg Leu Asp Cys Val Val Asn Asn Ala Gly His His Pro Pro Pro
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 Gln Arg Pro Glu Glu Thr Ser Ala Gln Gly Phe Arg Gln Leu Leu Glu
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 Val Arg Val Asn Cys Ile Ser Pro Gly Asn Ile Trp Thr Pro Leu Trp
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 Glu Glu Leu Ala Ala Leu Met Pro Asp Pro Arg Ala Thr Ile Arg Glu
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 Gly Met Leu Ala Gln Pro Leu Gly Arg Met Gly Gln Pro Ala Glu Val
 210 215 220
 Gly Ala Ala Ala Val Phe Leu Ala Ser Glu Ala Asn Phe Cys Thr Gly
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<210> 4645

<211> 1725

<212> DNA

<213> Homo sapiens

<400> 4645

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<210> 4646
<211> 358
<212> PRT
<213> Homo sapiens
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<210> 4647

<211> 791

<212> DNA

<213> Homo sapiens

<400> 4647

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<210> 4648

<211> 188

<212> PRT

<213> Homo sapiens

<400> 4648

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                20                25                30
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Arg Thr Ile Leu Met Arg Lys Glu Gly Glu Ser Ala Lys Ser Ile Asn
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Glu Met Leu Leu Ser Arg Leu Ser Arg Tyr Arg Ala Ser Pro Ser Ala
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Thr Leu Ala Ala Leu Thr Gly Ser Thr Ile Ser Asn Thr Leu Lys Glu
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Asp Gln Ala Ala Asn Thr Ser Cys Gly Leu Pro Leu Lys Met Leu Arg
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Lys Thr Pro Ile Tyr Thr Cys Gly Thr Tyr Leu Val Met Leu Val Pro
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Pro Pro Gly Gly Ser Gly Ser Ser Ala Thr Arg Ser Leu Phe Gly Gly
145                150                155                160
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<210> 4649

<211> 3276

<212> DNA

<213> Homo sapiens

<400> 4649

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780

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<210> 4650

<211> 965

<212> PRT

<213> Homo sapiens

<400> 4650

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Glu	Val	Ala	Val	Lys	Val	Cys	Leu	Leu	Asn	Phe	Met	Ile	Thr	Pro	Leu
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Gly	Leu	Gln	Asp	Gln	Leu	Leu	Gly	Ile	Val	Ala	Ala	Lys	Glu	Lys	Pro
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Lys	Lys	His	Leu	Lys	Glu	Ile	Glu	Asp	Lys	Ile	Leu	Glu	Val	Leu	Ser
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Ser	Ser	Ser	Lys	Val	Leu	Ser	Glu	Ile	Ser	Glu	Lys	Gln	Lys	Val	
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Ala	Asn	Ile	Glu	Pro	Met	Tyr	Gln	Tyr	Ser	Leu	Thr	Trp	Phe	Ile	Asn
				165					170					175	
Leu	Tyr	Met	His	Ser	Leu	Thr	His	Ser	Thr	Lys	Ser	Glu	Glu	Leu	Asn
			180					185					190		
Leu	Arg	Ile	Lys	Tyr	Ile	Ile	Asp	His	Phe	Thr	Leu	Ser	Ile	Tyr	Asn
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Val	Trp	Tyr	Phe	Leu	Leu	Thr	Gly	Gly	Ile	Ala	Leu	Asp	Asn	Pro	Tyr
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Pro	Asn	Pro	Ala	Pro	Gln	Trp	Leu	Ser	Glu	Lys	Ala	Trp	Ala	Glu	Ile
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Val	Arg	Ala	Ser	Ala	Leu	Pro	Lys	Leu	His	Gly	Leu	Met	Glu	His	Leu
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Glu	Gln	Asn	Leu	Gly	Glu	Trp	Lys	Leu	Ile	Tyr	Asp	Ser	Ala	Trp	Pro
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Lys	Met	Val	Ile	Leu	Arg	Cys	Leu	Arg	Pro	Asp	Lys	Met	Val	Pro	Ala
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Ile	Ser	Leu	Gly	Gln	Gly	Gln	Gly	Pro	Ile	Ala	Ala	Lys	Met	Ile	Asn
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Thr	Asn	Glu	Pro	Pro	Lys	Gly	Leu	Arg	Ala	Asn	Leu	Leu	Arg	Ser	Tyr
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Leu	Asn	Asp	Pro	Ile	Ser	Asp	Pro	Val	Phe	Phe	Gln	Ser	Cys	Ala	Lys
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Ala	Val	Met	Trp	Gln	Lys	Met	Leu	Phe	Gly	Leu	Cys	Phe	Phe	His	Ala
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Tyr	Glu	Phe	Asn	Glu	Ser	Asp	Leu	Arg	Ile	Ser	Met	Trp	Gln	Ile	Gln
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Met	Phe	Leu	Asn	Asp	Tyr	Lys	Glu	Val	Pro	Phe	Asp	Ala	Leu	Thr	Tyr

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Arg	Arg	Leu	Leu	Leu	Ser	Leu	Leu	Ser	Met	Phe	Tyr	Cys	Lys	Glu	Ile
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Glu	Glu	Asp	Tyr	Tyr	Ser	Leu	Ala	Pro	Gly	Asp	Thr	Tyr	Tyr	Ile	Pro
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Thr	Lys	Asp	Asn	Gln	Glu	Thr	Asn	Gln	Leu	Phe	Glu	Gly	Val	Leu	Leu
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Asp	Leu	Glu	Glu	Val	Met	Lys	Leu	Tyr	Pro	Val	Val	Tyr	Glu	Glu	Ser
705					710					715					720
Met	Asn	Thr	Val	Leu	Arg	Gln	Glu	Leu	Ile	Arg	Phe	Asn	Arg	Leu	Thr
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Gln	Val	Leu	Met	Ser	Ser	Glu	Leu	Glu	Glu	Val	Phe	Asn	Ser	Met	Leu
		755					760					765			
Val	Gly	Lys	Val	Pro	Ala	Met	Trp	Ala	Ala	Lys	Ser	Tyr	Pro	Ser	Leu
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785					790					795					800
Phe	Gln	Glu	Trp	Ile	Asp	Lys	Gly	Pro	Pro	Val	Val	Phe	Trp	Ile	Ser
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Gly	Phe	Tyr	Phe	Thr	Gln	Ser	Phe	Leu	Thr	Gly	Val	Ser	Gln	Asn	Tyr
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Ala	Arg	Lys	Tyr	Thr	Ile	Pro	Ile	Asp	His	Ile	Gly	Phe	Glu	Phe	Glu
		835					840					845			
Val	Thr	Pro	Gln	Glu	Thr	Val	Met	Glu	Asn	Asn	Pro	Glu	Asp	Gly	Ala
		850				855					860				
Tyr	Ile	Lys	Gly	Leu	Phe	Leu	Glu	Gly	Ala	Arg	Trp	Asp	Arg	Lys	Thr
865					870					875					880
Met	Gln	Ile	Gly	Glu	Ser	Leu	Pro	Lys	Ile	Leu	Tyr	Asp	Pro	Leu	Pro
				885					890					895	
Ile	Ile	Trp	Leu	Lys	Pro	Gly	Glu	Ser	Ala	Met	Phe	Leu	His	Gln	Asp
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<210> 4651

<211> 869

<212> DNA

<213> Homo sapiens

<400> 4651

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240
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420
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480
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540
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660
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720
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869

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<210> 4652

<211> 289

<212> PRT

<213> Homo sapiens

<400> 4652

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20     25     30
Gly Ala Ala Ser Ala Val Ser Leu Ala Gly Ala Ser Leu Val Leu Ser
35     40     45
Leu Leu Gln Arg Val Ala Ser Tyr Ala Arg Lys Trp Gln Gln Met Arg
50     55     60
Pro Ile Pro Thr Val Ala Arg Ala Tyr Pro Leu Val Gly His Ala Leu
65     70     75     80
Leu Met Lys Pro Asp Gly Arg Glu Phe Phe Gln Gln Ile Ile Glu Tyr
85     90     95
Thr Glu Glu Tyr Arg His Met Pro Leu Leu Lys Leu Trp Val Gly Pro

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			100					105					110				
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			115					120					125				
Thr	Ser	Ser	Lys	Gln	Ile	Asp	Lys	Ser	Ser	Met	Tyr	Lys	Phe	Leu	Glu		
			130					135					140				
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Asp	Phe	Leu	Asp	Ile	Met	Asn	Glu	Gln	Ala	Asn	Ile	Leu	Val	Lys	Lys		
			180					185					190				
Leu	Glu	Lys	His	Ile	Asn	Gln	Glu	Ala	Phe	Asn	Cys	Phe	Phe	Tyr	Ile		
		195					200					205					
Thr	Leu	Cys	Ala	Leu	Asp	Ile	Ile	Cys	Glu	Thr	Ala	Met	Gly	Lys	Asn		
210						215					220						
Ile	Gly	Ala	Gln	Ser	Asn	Asp	Asp	Ser	Glu	Tyr	Val	Arg	Ala	Val	Tyr		
225					230				235						240		
Arg	Met	Ser	Glu	Met	Ile	Phe	Pro	Arg	Ile	Lys	Met	Pro	Trp	Leu	Trp		
				245					250						255		
Leu	Asp	Leu	Trp	Tyr	Leu	Met	Phe	Lys	Glu	Gly	Trp	Glu	His	Lys	Lys		
			260				265					270					
Ser	Leu	Lys	Ile	Leu	His	Thr	Phe	Thr	His	Ser	Val	Ile	Pro	Glu	Arg		
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<210> 4653
 <211> 1276
 <212> DNA
 <213> Homo sapiens

<400> 4653
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 g a g g g c a c g c c g c a t c t c c g c a t g t c t g t c g g a t t a t t c g c t a g c c a g c g a c a g t g g g g t
 120
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 180
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 300
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 420
 c c a t t t g c t g c t c a g g c a g g g c c t t a c a g c c c g a g a a a t t t c a g c c c t c g c c t c t t a a g
 480
 g t t g a t a a g g a a a c c a a c a c g g a a g a t c t c t t t c t g g a a g a a g c a g c c a g c c t c g t g a a g
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 600
 t c c c a g a c a t t c t c g c c t g g a g c a c g a a g c a g t a t g t t t g c a g a c t t t a t c g t a g t g a c
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 780
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<211> 255

<212> PRT

<213> Homo sapiens

<400> 4654

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Pro	Tyr	Ser	Pro	Glu	Lys	Phe	Gln	Pro	Ser	Pro	Leu	Lys	Val	Asp	Lys
			20					25					30		
Glu	Thr	Asn	Thr	Glu	Asp	Leu	Phe	Leu	Glu	Glu	Ala	Ala	Ser	Leu	Val
		35				40					45				
Lys	Glu	Arg	Pro	Ser	Arg	Arg	Ala	Arg	Gly	Ser	Pro	Phe	Val	Arg	Ser
	50					55					60				
Gly	Thr	Ile	Val	Arg	Ser	Gln	Thr	Phe	Ser	Pro	Gly	Ala	Arg	Ser	Gln
65					70					75				80	
Tyr	Val	Cys	Arg	Leu	Tyr	Arg	Ser	Asp	Ser	Asp	Ser	Ser	Thr	Leu	Pro
				85					90					95	
Arg	Lys	Ser	Pro	Phe	Val	Arg	Asn	Thr	Leu	Glu	Arg	Arg	Thr	Leu	Arg
			100					105					110		
Tyr	Lys	Gln	Ser	Cys	Arg	Ser	Ser	Leu	Ala	Glu	Leu	Met	Ala	Arg	Thr
		115				120					125				
Ser	Leu	Asp	Leu	Glu	Leu	Asp	Leu	Gln	Ala	Ser	Arg	Thr	Arg	Gln	Arg
	130					135				140					
Gln	Leu	Asn	Glu	Glu	Leu	Cys	Ala	Leu	Arg	Glu	Leu	Arg	Gln	Arg	Leu
145					150					155				160	
Glu	Asp	Ala	Gln	Leu	Arg	Gly	Gln	Thr	Asp	Leu	Pro	Pro	Trp	Val	Leu
			165					170						175	
Arg	Asp	Glu	Arg	Leu	Arg	Gly	Leu	Leu	Arg	Glu	Ala	Glu	Arg	Gln	Thr
		180						185				190			
Arg	Gln	Thr	Lys	Leu	Asp	Tyr	Arg	His	Glu	Gln	Ala	Ala	Glu	Lys	Met

	195					200						205					
Leu	Lys	Lys	Ala	Ser	Lys	Glu	Ile	Tyr	Gln	Leu	Arg	Gly	Gln	Ser	His		
	210					215					220						
Lys	Glu	Pro	Ile	Gln	Val	Gln	Thr	Phe	Arg	Glu	Lys	Ile	Ala	Phe	Phe		
225					230					235					240		
Thr	Arg	Pro	Arg	Ile	Asn	Ile	Pro	Pro	Leu	Pro	Ala	Asp	Asp	Val			
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<211> 456

<212> DNA

<213> Homo sapiens

<400> 4655

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240
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360
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<210> 4656

<211> 152

<212> PRT

<213> Homo sapiens

<400> 4656

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Ala	Val	Gln	Arg	His	Glu	Gln	Gln	Glu	Gln	Ala	Gly	His	Thr	His	Arg
		20						25					30		
Gln	Gln	Gln	Arg	Gln	Arg	Leu	Ala	Arg	His	Gly	Val	Arg	Arg	Ala	Ala
		35					40					45			
Pro	Arg	Arg	Leu	Val	Val	Leu	Glu	Asp	Glu	Val	Glu	Leu	Asp	Leu	Gln
	50					55				60					
His	Glu	Asp	Val	Lys	Glu	Pro	Gln	Asp	His	Gly	Val	Ala	Ala	Leu	Gly
65				70						75				80	
Arg	Ala	His	Leu	Gly	Ala	His	Pro	His	Gly	His	Val	Ala	Gln	His	Gln
			85						90					95	
Gln	Glu	Ala	His	Val	Ala	His	Gln	His	Asp	Asp	Ala	His	Ala	Asp	Leu
		100						105					110		
Ala	Arg	Ala	Leu	Val	Leu	Leu	His	Gln	Val	Arg	Val	His	Asp	Gly	His
		115					120						125		
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 Gly Arg Gln His His Gly Arg Pro
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<210> 4657
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 180
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 480
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 gccctgatgc ccaggaaac ccaggccctc aagcagaaga tccgggatca gttgaaggaa
 600
 gaggagatcc acatctacca gttccccgaa tgtgactctg atgaagatga agacttcaag
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 gta
 723

<210> 4658
 <211> 233
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Asn Leu Tyr Glu Asp Arg Gln Val Pro Glu Ala Ser Ala Arg Leu Thr
 50 55 60
 Gln Thr Leu Ala Ile Glu Arg Arg Gly Val Glu Ile Glu Glu Gly Gly
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 Val Lys Val Lys Leu Thr Leu Val Asp Thr Pro Gly Phe Gly Asp Ser


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<212> DNA
<213> Homo sapiens
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3854

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<210> 4660
<211> 192
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20 25 30
Ser Val Arg Ala Phe His His Gln Phe Leu Glu Ser Thr His Gly Ser
35 40 45
Pro Ser Val Asp Ile Ser Leu Asp Leu Ala Lys Ser Thr Met Arg Thr
50 55 60
Ala Lys Ser Cys His Ile Val Ile Thr Asn Arg Ser Arg Asp Ala Ile
65 70 75 80
Ser Gly Pro Val Glu Ser Pro His Cys Asp Ala Cys Ser Thr Gln Thr
85 90 95
Ala Phe Ile His Ile Ser Cys Asn Leu Thr Pro Lys Ala Arg Glu Thr
100 105 110
Lys Cys Ala Thr Glu Thr Asp Ser Ala Val Ala Glu Thr Val Thr His
115 120 125
Ala Cys Leu Pro Val Gly Val Leu Gly Gly Arg Thr Gly Thr Asp Ser
130 135 140
Arg Leu Gly His Asn Asp His Arg Arg Leu Ser Leu His Phe Gln Cys
145 150 155 160
Arg Ala Phe His Val Val Phe Ile Cys Gly Glu Ile Leu Ser Gln Ala
165 170 175
Thr Arg His Phe Leu Leu Gly Thr Leu Phe Thr Asn Phe His Cys Phe
180 185 190

<210> 4661
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<212> DNA
<213> Homo sapiens

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153

<210> 4662
<211> 51
<212> PRT
<213> Homo sapiens

<400> 4662
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 1320
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 1380
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 1440
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<212> PRT

<213> Homo sapiens

<400> 4664

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			20					25					30		
Glu	Ile	Ala	Ser	Ser	Pro	Ala	Gly	Gln	Thr	Asp	Asp	Pro	Gly	Pro	Leu
		35					40					45			
Asp	Gly	Pro	Asp	Leu	Gln	Ala	Ser	His	Ser	Glu	Leu	Gln	Val	Pro	Thr
	50					55					60				
Pro	Gly	Arg	Ala	Gly	Leu	Leu	Asn	Thr	Ser	Gly	Thr	Lys	Gly	Leu	Glu
65					70					75				80	
Cys	Ser	Pro	Ser	Thr	Pro	Thr	Met	Asn	Ser	Tyr	Phe	Tyr	Lys	Phe	Met
				85					90					95	
Ile	Asn	Leu	Leu	Lys	Arg	Phe	Ser	Ser	Glu	Arg	Lys	Leu	Leu	Glu	Val
			100					105					110		
Arg	Gly	Pro	Phe	Ile	Ile	Arg	Gln	Leu	Cys	Leu	Leu	Leu	Asn	Ala	Glu
		115					120					125			
Asn	Ile	Phe	His	Ser	Met	Ala	Asp	Ile	Leu	Leu	Arg	Glu	Glu	Asp	Leu
	130					135					140				
Lys	Phe	Ala	Ser	Thr	Met	Val	His	Ala	Leu	Asn	Thr	Ile	Leu	Leu	Thr
145					150					155				160	
Ser	Thr	Glu	Leu	Phe	Gln	Leu	Arg	Asn	Gln	Leu	Lys	Asp	Leu	Lys	Thr
			165						170					175	
Leu	Glu	Ser	Gln	Asn	Leu	Phe	Cys	Cys	Leu	Tyr	Arg	Ser	Trp	Cys	His
			180					185					190		
Asn	Pro	Val	Thr	Thr	Val	Ser	Leu	Cys	Phe	Leu	Thr	Gln	Asn	Tyr	Arg
		195					200						205		
His	Ala	Tyr	Asp	Leu	Ile	Gln	Lys	Phe	Gly	Asp	Leu	Glu	Val	Thr	Val
	210					215					220				
Asp	Phe	Leu	Ala	Glu	Val	Asp	Lys	Leu	Val	Gln	Leu	Ile	Glu	Cys	Pro
225					230					235				240	
Ile	Phe	Thr	Tyr	Leu	Arg	Leu	Gln	Leu	Leu	Asp	Val	Lys	Asn	Asn	Pro
			245						250					255	
Tyr	Leu	Ile	Lys	Ala	Leu	Tyr	Gly	Leu	Leu	Met	Leu	Leu	Pro	Gln	Ser
			260					265					270		
Ser	Ala	Phe	Gln	Leu	Leu	Ser	His	Arg	Leu	Gln	Cys	Val	Pro	Asn	Pro

	275		280		285	
Glu	Leu	Leu	Gln	Thr	Glu	Asp
	290		295		300	
Lys	Ala	Asp	Ser	Pro	Ser	Ile
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Glu	Lys	Val	Gln	Asn	Lys	His
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<210> 4665
 <211> 1043
 <212> DNA
 <213> Homo sapiens

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 120
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 180
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 240
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 420
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 480
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 540
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 600
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 660
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 720
 atgaaattag gtcattatct atgaaaagtt ttgagagggc actgtcaact tgggtttaag
 780
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<210> 4666

<211> 167

<212> PRT

<213> Homo sapiens

<400> 4666

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          20          25          30
Arg Glu Phe Trp Ser Arg Phe Arg Lys Glu Lys Glu Pro Val Val Val
          35          40          45
Glu Thr Val Glu Glu Lys Lys Glu Pro Ile Leu Val Cys Pro Pro Leu
          50          55          60
Arg Ser Arg Ala Tyr Thr Pro Pro Glu Asp Leu Gln Ser Arg Leu Glu
65          70          75          80
Ser Tyr Val Lys Glu Val Phe Gly Ser Ser Leu Pro Ser Asn Trp Gln
          85          90          95
Asp Ile Ser Leu Glu Asp Ser Arg Leu Lys Phe Asn Leu Leu Ala His
          100         105         110
Leu Ala Asp Asp Leu Gly His Val Val Pro Asn Ser Arg Leu His Gln
          115         120         125
Met Cys Arg Val Arg Asp Val Leu Asp Phe Tyr Asn Val Pro Ile Gln
          130         135         140
Asp Arg Ser Lys Phe Asp Glu Leu Ser Ala Ser Asn Leu Pro Pro Asn
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Leu Lys Ile Thr Trp Ser Tyr
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<210> 4667

<211> 1031

<212> DNA

<213> Homo sapiens

<400> 4667

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<210> 4668
 <211> 207
 <212> PRT
 <213> Homo sapiens

<400> 4668
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 35 40 45
 Ser Cys Phe Ala Met Thr Glu Pro Gln Val Ala Ser Ser Asp Ala Thr
 50 55 60
 Asn Ile Glu Ala Ser Ile Arg Glu Glu Asp Ser Phe Tyr Val Ile Asn
 65 70 75 80
 Gly His Lys Trp Trp Ile Thr Gly Ile Leu Asp Pro Arg Cys Gln Leu
 85 90 95
 Cys Val Phe Met Gly Lys Thr Asp Pro His Ala Pro Arg His Arg Gln
 100 105 110
 Gln Ser Val Leu Leu Val Pro Met Asp Thr Pro Gly Ile Lys Ile Ile
 115 120 125
 Arg Pro Leu Thr Val Tyr Gly Leu Glu Asp Ala Pro Gly Gly His Gly
 130 135 140
 Glu Val Arg Phe Glu His Val Arg Val Pro Lys Glu Asn Met Val Leu
 145 150 155 160
 Gly Pro Gly Arg Gly Phe Glu Ile Ala Gln Gly Arg Leu Gly Pro Gly
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<210> 4669
 <211> 683
 <212> DNA
 <213> Homo sapiens

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<213> Homo sapiens

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Thr Cys Val Gln Ala Gly Phe Gln Asp Met Asn Ile Lys Lys Gln Ile
35 40 45
Gln Glu Gln His Gln Ala Ala Ile Ile Ile Gln Lys His Cys Lys Ala
50 55 60
Phe Lys Ile Arg Lys His Tyr Leu His Ile Arg Ala Thr Val Val Ser
65 70 75 80
Ile Gln Arg Arg Tyr Arg Lys Leu Thr Ala Val Arg Thr Gln Ala Val
85 90 95
Ile Cys Ile Gln Ser Tyr Tyr Arg Gly Phe Lys Val Arg Lys Asp Ile
100 105 110
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<210> 4671
<211> 657

<212> DNA

<213> Homo sapiens

<400> 4671

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<210> 4672

<211> 152

<212> PRT

<213> Homo sapiens

<400> 4672

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20          25          30
Lys Leu Met Leu Asp His Met Thr Asn Thr Thr Asn Ala Ser His Val
35          40          45
Pro Val Gln Pro Gly Ser Ser Val Val Met Met Val Asn Asn Leu Gly
50          55          60
Gly Leu Ser Phe Leu Glu Leu Gly Ile Ile Ala Asp Ala Thr Val Arg
65          70          75          80
Ser Leu Glu Gly Arg Gly Val Lys Ile Ala Arg Ala Leu Val Gly Thr
85          90          95
Phe Met Ser Ala Leu Glu Met Pro Gly Ile Ser Leu Thr Leu Leu Leu
100         105         110
Val Asp Glu Pro Leu Leu Lys Leu Ile Asp Ala Glu Thr Thr Ala Ala
115         120         125
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130         135         140
Leu Ser Trp Ala Trp Arg Asn Thr
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<210> 4673

<211> 1335

<212> DNA

<213> Homo sapiens

<400> 4673

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<210> 4674

<211> 402
 <212> PRT
 <213> Homo sapiens

<400> 4674

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			20					25					30		
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			35				40					45			
Gly	Pro	Arg	Asn	Glu	Asp	Leu	Ser	Leu	Asp	Tyr	Ala	Ser	Gln	Pro	Ala
	50					55					60				
Asn	Leu	Gln	Phe	Pro	His	Ile	Met	Pro	Leu	Ala	Glu	Asp	Ile	Lys	Gly
65					70					75				80	
Ser	Cys	Phe	Gln	Ser	Gly	Asn	Lys	Arg	Asn	His	Glu	Pro	Phe	Ile	Ala
			85					90						95	
Pro	Glu	Arg	Phe	Gly	Asn	Ser	Ser	Val	Gly	Phe	Gly	Ser	Asn	Ser	His
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Ser	Gln	Ala	Pro	Glu	Lys	Val	Thr	Leu	Leu	Val	Asp	Gly	Thr	Arg	Phe
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Val	Val	Asn	Pro	Gln	Ile	Phe	Thr	Ala	His	Pro	Asp	Thr	Met	Leu	Gly
	130					135					140				
Arg	Met	Phe	Gly	Pro	Gly	Arg	Glu	Tyr	Asn	Phe	Thr	Arg	Pro	Asn	Glu
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Lys	Gly	Glu	Tyr	Glu	Ile	Ala	Glu	Gly	Ile	Ser	Ala	Thr	Val	Phe	Arg
			165					170						175	
Thr	Val	Leu	Asp	Tyr	Tyr	Lys	Thr	Gly	Ile	Ile	Asn	Cys	Pro	Asp	Gly
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			245					250						255	
Glu	Cys	His	Ile	Val	Val	Leu	Thr	Asp	Glu	Asp	Ser	Val	Asp	Trp	Asp
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	275					280						285			
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	290					295					300				
Ala	Lys	Thr	Val	Leu	Lys	Glu	Arg	Gly	Leu	Lys	Asn	Ile	Arg	Ile	Gly
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			325					330						335	
Gly	Arg	Ser	Glu	Val	Ile	Tyr	Asn	Tyr	Val	Gln	Arg	Pro	Phe	Ile	Gln
			340					345					350		
Met	Ser	Trp	Glu	Lys	Glu	Glu	Gly	Lys	Ser	Arg	His	Val	Asp	Phe	Gln
		355					360					365			
Cys	Val	Arg	Ser	Lys	Ser	Leu	Thr	Asn	Leu	Val	Ala	Ala	Gly	Asp	Asp
	370					375					380				
Val	Leu	Glu	Asp	Gln	Glu	Ile	Leu	Met	His	His	Pro	Pro	Gln	Val	Asp

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390

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400

<210> 4675

<211> 2868

<212> DNA

<213> Homo sapiens

<400> 4675

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<210> 4676

<211> 641
 <212> PRT
 <213> Homo sapiens

<400> 4676

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			20					25					30		
Glu	Phe	Asn	Pro	Ser	Ser	Ser	Gly	Arg	Ser	Ala	Arg	Thr	Val	Ser	Ser
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Asn	Ser	Phe	Cys	Ser	Asp	Asp	Thr	Gly	Cys	Pro	Ser	Ser	Gln	Ser	Val
	50					55				60					
Ser	Pro	Val	Lys	Thr	Pro	Ser	Asp	Ala	Gly	Asn	Ser	Pro	Ile	Gly	Phe
65					70					75				80	
Cys	Pro	Gly	Ser	Asp	Glu	Gly	Phe	Thr	Arg	Lys	Lys	Cys	Thr	Ile	Gly
				85				90						95	
Met	Val	Gly	Glu	Gly	Ser	Ile	Gln	Ser	Ser	Arg	Tyr	Lys	Lys	Glu	Ser
			100					105					110		
Lys	Ser	Gly	Leu	Val	Lys	Pro	Gly	Ser	Glu	Ala	Asp	Phe	Ser	Ser	Ser
		115					120					125			
Ser	Ser	Thr	Gly	Ser	Ile	Ser	Ala	Pro	Glu	Val	His	Met	Ser	Thr	Ala
		130				135					140				
Gly	Ser	Lys	Arg	Ser	Ser	Ser	Ser	Arg	Asn	Arg	Gly	Pro	His	Gly	Arg
145					150					155				160	
Ser	Asn	Gly	Ala	Ser	Ser	His	Lys	Pro	Gly	Ser	Ser	Ser	Ser	Ser	Pro
				165				170						175	
Arg	Glu	Lys	Asp	Leu	Leu	Ser	Met	Leu	Cys	Arg	Asn	Gln	Leu	Ser	Pro
			180					185					190		
Val	Asn	Ile	His	Pro	Ser	Tyr	Ala	Pro	Ser	Ser	Pro	Ser	Ser	Ser	Asn
		195					200					205			
Ser	Gly	Ser	Tyr	Lys	Gly	Ser	Asp	Cys	Ser	Pro	Ile	Met	Arg	Arg	Ser
	210					215					220				
Gly	Arg	Tyr	Met	Ser	Cys	Gly	Glu	Asn	His	Gly	Val	Arg	Pro	Pro	Asn
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Pro	Glu	Gln	Tyr	Leu	Thr	Pro	Leu	Gln	Gln	Lys	Glu	Val	Thr	Val	Arg
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Val	Asp	Ile	Asn	Ile	Gln	Asn	Lys	Lys	Leu	Glu	Ser	Leu	Leu	Gln	Ser
			340				345						350		
Met	Glu	Met	Ala	His	Ser	Gly	Ser	Leu	Arg	Asp	Glu	Leu	Cys	Leu	Asp
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Phe	Pro	Cys	Asp	Ser	Pro	Glu	Lys	Ser	Leu	Thr	Leu	Asn	Pro	Pro	Leu
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Asp	Thr	Met	Ala	Asp	Gly	Leu	Ser	Leu	Glu	Glu	Gln	Val	Thr	Gly	Glu

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385          390          395          400
Gly Ala Asp Arg Glu Leu Leu Val Gly Asp Ser Ile Ala Asn Ser Thr
          405          410          415
Asp Leu Phe Asp Glu Ile Val Thr Ala Thr Thr Thr Glu Ser Gly Asp
          420          425          430
Leu Glu Leu Val His Ser Thr Pro Gly Ala Asn Val Leu Glu Leu Leu
          435          440          445
Pro Ile Val Met Gly Gln Glu Glu Gly Ser Val Val Val Glu Arg Ala
          450          455          460
Val Gln Thr Asp Val Val Pro Tyr Ser Pro Ala Ile Ser Glu Leu Ile
465          470          475          480
Gln Ser Val Leu Gln Lys Leu Gln Asp Pro Cys Pro Ser Ser Leu Ala
          485          490          495
Ser Pro Asp Glu Ser Glu Pro Asp Ser Met Glu Ser Phe Pro Glu Ser
          500          505          510
Leu Ser Ala Leu Val Val Asp Leu Thr Pro Arg Asn Pro Asn Ser Ala
          515          520          525
Ile Leu Leu Ser Pro Val Glu Thr Pro Tyr Xaa Gln Cys Gly Cys Arg
          530          535          540
Ser Ser Cys Lys Pro Pro His Glu Arg Ala Gly Xaa Phe Ala Ala Cys
545          550          555          560
Val Glu Glu Arg Leu Asp Gly Val Ile Pro Leu Ala Arg Gly Gly Val
          565          570          575
Val Arg Gln Tyr Trp Ser Ser Ser Phe Leu Val Asp Leu Leu Ala Val
          580          585          590
Ala Ala Pro Val Val Pro Thr Val Leu Trp Ala Phe Ser Thr Gln Arg
          595          600          605
Gly Gly Thr Asp Pro Val Tyr Asn Ile Gly Ala Leu Leu Arg Gly Cys
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Cys Val Val Ala Leu His Ser Leu Arg Arg Thr Ala Phe Arg Ile Lys
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<210> 4677

<211> 940

<212> DNA

<213> Homo sapiens

<400> 4677

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420

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 840
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<210> 4678

<211> 133

<212> PRT

<213> Homo sapiens

<400> 4678

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			20					25					30		
Arg	Thr	Val	Phe	Ile	Trp	Phe	Val	Gly	Gln	Leu	Leu	Gly	Gly	Glu	Leu
		35					40					45			
Lys	Gly	Tyr	Ser	Lys	Thr	Asn	Thr	Thr	Ser	Ser	Arg	Pro	Ala	Ser	Ser
	50					55					60				
Arg	Gly	Ser	Leu	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Leu	Thr	Lys
	65				70				75					80	
Asp	Ala	Leu	Pro	Ser	Ser	Leu	Lys	Ser	Asp	Ser	Thr	Thr	Ile	Thr	Ser
			85					90					95		
Gly	Leu	Val	Phe	Pro	Phe	Arg	Ser	Leu	Cys	Val	Asn	Pro	Ala	Lys	Ser
		100					105				110				
Ser	Val	Ser	Glu	Ser	Val	Ser	Ser	Ile	Lys	Ile	Leu	Leu	Ser	Ser	Ser
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<210> 4679

<211> 2284

<212> DNA

<213> Homo sapiens

<400> 4679

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<210> 4680

<211> 112

<212> PRT

<213> Homo sapiens

<400> 4680

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Thr	Ser	Phe	His	Arg	Gly	Thr	Cys	Leu	Glu	Phe	Trp	His	Arg	Gly	Leu
			20					25					30		
Thr	Glu	His	Ser	Ser	Asp	Ile	Phe	Leu	Gln	Leu	Glu	Met	Leu	Cys	Trp
			35				40					45			
Ser	Pro	Cys	Ser	Leu	Thr	Phe	Ser	Arg	Ala	Ile	Lys	Ala	Thr	Ser	Ser
		50				55					60				
Ile	Ala	Gly	Pro	Gln	Thr	Phe	Gln	Gly	Lys	His	Cys	Phe	Thr	Ser	Cys
65				70					75					80	
Arg	Gln	Leu	Ile	Ser	Gln	Lys	Pro	Leu	Gln	Lys	Pro	Val	Leu	Pro	Gly
				85				90						95	
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<210> 4681

<211> 906

<212> DNA

<213> Homo sapiens

<400> 4681

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<210> 4682

<211> 153

<212> PRT

<213> Homo sapiens

<400> 4682

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			20					25					30		
Phe	Leu	Phe	His	Gln	Thr	Thr	Arg	Gln	Lys	Asn	Leu	Ser	Phe	Leu	Pro
			35				40					45			
Pro	Phe	Ser	Phe	Phe	Pro	Ser	Cys	Thr	His	Leu	Glu	Asn	Phe	Thr	Phe
			50			55					60				
Leu	Glu	Ser	Pro	Gln	Asn	Asn	Thr	Lys	Val	Ile	Val	Gly	Ala	Thr	Gly
65				70					75					80	
Phe	Met	Leu	Tyr	Cys	Gly	Ala	Arg	Gly	Lys	Thr	Cys	Leu	Tyr	Ala	Gly
			85					90					95		
Asn	Thr	His	Asn	His	Ser	Phe	Arg	Phe	Val	Cys	Leu	Met	Val	Ile	Cys
			100				105						110		
His	Lys	Arg	Asp	Leu	Gln	Lys	Gln	Gly	Ala	Leu	Val	Asn	Val	Gln	Tyr
			115			120					125				
Leu	Asp	Phe	Cys	Val	Leu	Arg	Thr	Gln	Lys	Gly	Ala	Thr	Leu	Leu	Phe
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<210> 4683
<211> 3246
<212> DNA
<213> Homo sapiens

<400> 4683
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<210> 4684
 <211> 385
 <212> PRT
 <213> Homo sapiens

<400> 4684
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 35 40 45
 Gln Thr His Gly Thr Ala Arg Ile Gly Thr His Asn Gly Thr Phe His
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 Cys Asp Glu Ala Leu Ala Cys Ala Leu Leu Arg Leu Leu Pro Glu Tyr
 65 70 75 80
 Arg Asp Ala Glu Ile Val Arg Thr Arg Asp Pro Glu Lys Leu Ala Ser
 85 90 95
 Cys Asp Ile Val Val Asp Val Gly Gly Glu Tyr Asp Pro Arg Arg His
 100 105 110
 Arg Tyr Asp His His Gln Arg Ser Phe Thr Glu Thr Met Ser Ser Leu
 115 120 125
 Ser Pro Gly Lys Pro Trp Gln Thr Lys Leu Ser Ser Ala Gly Leu Ile
 130 135 140
 Tyr Leu His Phe Gly His Lys Leu Leu Ala Gln Leu Leu Gly Thr Ser
 145 150 155 160
 Glu Glu Asp Ser Met Val Gly Thr Leu Tyr Asp Lys Met Tyr Glu Asn
 165 170 175
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 180 185 190
 Glu Gly Glu Pro Arg Tyr Ala Leu Thr Thr Thr Leu Ser Ala Arg Val
 195 200 205
 Ala Arg Leu Asn Pro Thr Trp Asn His Pro Asp Gln Asp Thr Glu Ala
 210 215 220
 Gly Phe Lys Arg Ala Met Asp Leu Val Gln Glu Glu Phe Leu Gln Arg
 225 230 235 240
 Leu Asp Phe Tyr Gln His Ser Trp Leu Pro Ala Arg Ala Leu Val Glu
 245 250 255
 Glu Ala Leu Ala Gln Arg Phe Gln Val Asp Pro Ser Gly Glu Ile Val
 260 265 270
 Glu Leu Ala Lys Gly Ala Cys Pro Trp Lys Glu His Leu Tyr His Leu
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 Glu Ser Gly Leu Ser Pro Pro Val Ala Ile Phe Phe Val Ile Tyr Thr
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 Asp Gln Ala Gly Gln Trp Arg Ile Gln Cys Val Pro Lys Glu Pro His

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<400> 4686
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          20          25          30
Ser Gly Leu Ser Leu Gln Glu Ala Gln Gln Ile Leu Asn Val Ser Lys
          35          40          45
Leu Ser Pro Glu Glu Val Gln Lys Asn Tyr Glu His Leu Phe Lys Val

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	85		90	95
Asp Arg Glu Lys Gly Gln Met Pro His Thr				
100		105		

<210> 4687
 <211> 309
 <212> DNA
 <213> Homo sapiens

<400> 4687
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 309

<210> 4688
 <211> 90
 <212> PRT
 <213> Homo sapiens

<400> 4688
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20 25 30
Pro Leu Trp Val Ala Leu Met Ser Ala Leu Ile Leu Gly Leu Leu Phe
35 40 45
Val Ala Val Tyr Ser Leu Ser His Gly Glu Val Ser Tyr Asp Pro Leu
50 55 60
Tyr Ala Gly Phe Ala Val Phe Ala Phe Thr Ser Gly Gly Asp Leu Ile
65 70 75 80
Ile Ala Leu Gln Glu Asp Ser Tyr Gly Gly
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<210> 4689
 <211> 898
 <212> DNA
 <213> Homo sapiens

<400> 4689
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<210> 4690

<211> 299

<212> PRT

<213> Homo sapiens

<400> 4690

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<210> 4691

<211> 2375

<212> DNA

<213> Homo sapiens

<400> 4691

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<211> 383

<212> PRT

<213> Homo sapiens

<400> 4692

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 Lys Gly Phe Leu Ala Gly Tyr Val Val Ala Lys Leu Arg Ala Ser Ala
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 Val Leu Gly Phe Ala Val Gly Thr Cys Thr Gly Ile Tyr Ala Ala Gln
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<400> 4696

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<212> DNA

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<211> 182

<212> PRT

<213> Homo sapiens

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Lys	Cys	Thr	Phe	Ser	Thr	Ser	Thr	Thr	Met	Asp	Asp	Gly	Leu	Trp	Ile
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Thr	Leu	Leu	His	Leu	Asp	His	Met	Arg	Ala	Lys	Thr	Lys	Tyr	Val	Lys
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<212> DNA

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<211> 116

<212> PRT

<213> Homo sapiens

<400> 4700

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Ser	Thr	Arg	Gly	Gln	Ser	Lys	Thr	Gly	Trp	Lys	Leu	Pro	Val	Thr	Leu
			20					25					30		
Ile	Cys	Cys	Pro	Arg	His	Pro	Leu	Met	Arg	Leu	Lys	Leu	Gly	Pro	Ser

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Glu Thr Ala Ala Ala Pro Tyr Arg Ala Cys Trp Leu Cys Arg Gly Glu
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Val Asp Asp Lys Gly Thr Arg His Ala Ser Ala Pro Cys Val Arg Ser
   65          70          75          80
Gly Leu Gly His Ser Pro Cys Thr Ser Lys Thr Pro Val Leu Thr Pro
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Thr Ser Lys Glu Leu Leu Leu Leu Ile Cys Lys Ala Ile Leu Leu Leu
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Ser Asn Leu Val
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<210> 4701
 <211> 812
 <212> DNA
 <213> Homo sapiens

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<210> 4702
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 <212> PRT
 <213> Homo sapiens

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<400> 4702
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      20             25             30
His Xaa Pro Pro Gly His Phe Phe Leu Glu Thr Arg Ser Tyr Ser Leu
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Pro Pro Gly Leu Lys
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<210> 4703

<211> 513

<212> DNA

<213> Homo sapiens

<400> 4703

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<212> PRT

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<400> 4704

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      20             25             30
His Leu Pro Ala Glu Leu Thr Ala Glu Glu Lys Glu Asp Leu Leu Lys
      35             40             45
Tyr Phe Gly Ala Gln Ser Val Arg Val Leu Ser Asp Lys Gly Arg Leu
      50             55             60
Lys His Thr Ala Phe Ala Thr Phe Pro Asn Glu Lys Ala Ala Ile Lys
      65             70             75             80
Ala Leu Thr Arg Leu His Gln Leu Lys Leu Leu Gly His Thr Leu Val
      85             90             95
Val Glu Phe Ala Lys Glu Gln Asp Arg Val His Ser Pro Cys Pro Thr

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100

105

110

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 <212> DNA
 <213> Homo sapiens

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 240
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<210> 4706
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<400> 4706
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 35 40 45
 Val Met Ile Tyr Asp Ala Glu Lys Gln Arg Pro Arg Gly Lys Gly Arg
 50 55 60
 Ser Ser Leu Thr Ser Ala Phe Ser Leu Leu Leu Pro Gln Met Ala Asn
 65 70 75 80
 Tyr Leu Thr Arg Gln Ala His Thr Gly Gly Cys Ser Lys Gln Pro
 85 90 95
 Gln Glu Gly Thr Ile Trp Arg Gln Met Thr Lys Thr Trp Ala Pro His
 100 105 110
 Val His Pro Ile Gln Pro Val Cys Ala Ser Arg Gly Gln Thr Ser His
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150

<210> 4707

<211> 748

<212> DNA

<213> Homo sapiens

<400> 4707

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<211> 128

<212> PRT

<213> Homo sapiens

<400> 4708

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Ser	Ser	Ser	Leu	Ser	Pro	Pro	Arg	Gly	Asp	Arg	Thr	Leu	Leu	Val	Arg
			20					25					30		
His	Leu	Pro	Ala	Glu	Leu	Thr	Ala	Glu	Glu	Lys	Glu	Asp	Leu	Leu	Lys
		35					40					45			
Tyr	Phe	Gly	Ala	Gln	Ser	Val	Arg	Val	Leu	Ser	Asp	Lys	Gly	Arg	Leu
	50					55					60				
Lys	His	Thr	Ala	Phe	Ala	Thr	Phe	Pro	Asn	Glu	Lys	Ala	Ala	Ile	Lys
65					70				75					80	
Ala	Leu	Thr	Arg	Leu	His	Gln	Leu	Lys	Leu	Leu	Gly	His	Thr	Leu	Val
				85				90						95	
Val	Glu	Phe	Ala	Lys	Glu	Gln	Asp	Arg	Val	His	Ser	Pro	Cys	Pro	Thr

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<210> 4709

<211> 1351

<212> DNA

<213> Homo sapiens

<400> 4709

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<212> PRT
<213> Homo sapiens

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35 40 45
Gln Ser Arg Gly Phe Gly Phe Val Lys Phe Lys Asp Pro Asn Cys Val
50 55 60
Gly Thr Val Leu Ala Ser Arg Pro His Thr Leu Asp Gly Arg Asn Ile
65 70 75 80
Asp Pro Lys Pro Cys Thr Pro Arg Gly Met Gln Pro Glu Arg Thr Arg
85 90 95
Pro Lys Glu Gly Trp Gln Lys Gly Pro Arg Ser Asp Asn Ser Lys Ser
100 105 110
Asn Lys Ile Phe Val Gly Gly Ile Pro His Asn Cys Gly Glu Thr Glu
115 120 125
Leu Arg Glu Tyr Phe Lys Lys Phe Gly Val Val Thr Glu Val Val Met
130 135 140
Ile Tyr Asp Ala Glu Lys Gln Arg Pro Arg Gly Phe Gly Phe Ile Thr
145 150 155 160
Phe Glu Asp Glu Gln Ser Val Asp Gln Ala Val Asn Met His Phe His
165 170 175
Asp Ile Met Gly Lys Lys Val Glu Val Lys Arg Ala Glu Pro Arg Asp
180 185 190
Ser Lys Ser Gln Ala Pro Gly Gln Pro Gly Ala Ser Gln Trp Gly Ser
195 200 205
Arg Val Val Pro Asn Ala Ala Asn Gly Trp Ala Gly Gln Pro Pro Pro
210 215 220
Thr Trp Gln Gln Gly Tyr Gly Pro Gln Gly Met Trp Val Pro Ala Gly
225 230 235 240
Gln Ala Ile Gly Gly Tyr Gly Pro Pro Pro Ala Gly Arg Gly Ala Pro
245 250 255
Pro Pro Pro Pro Pro Phe Thr Ser Tyr Ile Val Ser Thr Pro Pro Gly
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<212> DNA
<213> Homo sapiens

<400> 4711

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 <211> 187
 <212> PRT
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 35 40 45
 Ala Gln Gln Leu Glu Glu Glu Gly Pro Met Glu Glu Glu Glu Ala Gln
 50 55 60
 Pro Met Ala Ala Pro Glu Gly Lys Arg Ser Leu Ala Asn Gly Pro Asn
 65 70 75 80
 Ala Gly Glu Gln Pro Gly Gln Val Ala Gly Ala Asp Phe Glu Ser Glu
 85 90 95
 Asp Glu Gly Glu Glu Phe Asp Asp Trp Glu Asp Asp Tyr Asp Tyr Pro
 100 105 110
 Glu Glu Glu Gln Leu Ser Gly Ala Gly Tyr Arg Val Ser Ala Ala Leu
 115 120 125
 Glu Glu Ala Asp Lys Met Phe Leu Arg Thr Arg Glu Pro Ala Leu Asp
 130 135 140
 Gly Gly Phe Gln Met His Tyr Glu Lys Thr Pro Phe Asp Gln Leu Ala
 145 150 155 160
 Phe Ile Glu Glu Leu Phe Ser Leu Met Val Val Asn Arg Leu Thr Glu
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<210> 4713
 <211> 1324
 <212> DNA
 <213> Homo sapiens

<400> 4713

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<210> 4714

<211> 145

<212> PRT

<213> Homo sapiens

<400> 4714

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Tyr	Glu	His	Leu	Phe	Lys	Val	Asn	Asp	Lys	Ser	Val	Gly	Gly	Ser	Phe
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<210> 4715

<211> 2051

<212> DNA

<213> Homo sapiens

<400> 4715

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<211> 239

<212> PRT

<213> Homo sapiens

<400> 4716

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Ala	Leu	Arg	Val	Thr	Leu	Lys	Gln	Asp	Thr	His	Gly	Val	Gly	His	Asp
			20					25					30		
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<211> 2753
<212> DNA
<213> Homo sapiens
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<210> 4718

<211> 259

<212> PRT

<213> Homo sapiens

<400> 4718

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Asn	Leu	Asp	Ala	Phe	Asn	Glu	Arg	Asp	Pro	Tyr	Lys	Ala	Asp	Asp	Ser	35	40	45	
Arg	Glu	Glu	Glu	Glu	Glu	Asn	Asp	Asp	Asp	Asn	Ser	Leu	Glu	Gly	Glu	50	55	60	
Thr	Phe	Pro	Leu	Glu	Arg	Asp	Glu	Val	Met	Pro	Pro	Pro	Leu	Gln	His	65	70	75	80
Pro	Gln	Thr	Asp	Arg	Leu	Thr	Cys	Pro	Lys	Gly	Leu	Pro	Trp	Ala	Pro	85	90	95	
Lys	Val	Arg	Glu	Lys	Asp	Ile	Glu	Met	Phe	Leu	Glu	Ser	Ser	Arg	Ser	100	105	110	
Lys	Phe	Ile	Gly	Tyr	Thr	Leu	Gly	Ser	Asp	Thr	Asn	Thr	Val	Val	Gly	115	120	125	
Leu	Pro	Arg	Pro	Ile	His	Glu	Ser	Ile	Lys	Thr	Leu	Lys	Gln	His	Lys	130	135	140	
Tyr	Thr	Ser	Ile	Ala	Glu	Val	Gln	Ala	Gln	Met	Lys	Glu	Glu	Tyr	Leu	145	150	155	160
Arg	Ser	Pro	Leu	Ser	Gly	Gly	Glu	Glu	Glu	Val	Glu	Gln	Val	Pro	Ala	165	170	175	
Glu	Thr	Leu	Tyr	Gln	Gly	Leu	Leu	Pro	Ser	Leu	Pro	Gln	Tyr	Met	Ile	180	185	190	
Ala	Leu	Leu	Lys	Ile	Leu	Leu	Ala	Ala	Ala	Pro	Thr	Ser	Lys	Ala	Lys	195	200	205	
Thr	Asp	Ser	Ile	Asn	Ile	Leu	Ala	Asp	Val	Leu	Pro	Glu	Glu	Met	Pro	210	215	220	
Thr	Thr	Val	Leu	Gln	Ser	Met	Lys	Leu	Gly	Val	Asp	Val	Asn	Arg	His	225	230	235	240
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Lys His Phe

<210> 4719
<211> 589
<212> DNA
<213> Homo sapiens

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<210> 4720
<211> 196
<212> PRT
<213> Homo sapiens

<400> 4720
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35 40 45
Ile Arg Lys Asn Phe Asp Glu Ala Ala Lys Val Leu Lys Phe Asn Cys
50 55 60
Glu Glu Asn Gln His Ser Asp Ser Cys Tyr Lys Leu Gly Ala Tyr Tyr
65 70 75 80
Val Thr Gly Lys Gly Gly Leu Thr Gln Asp Leu Lys Ala Ala Ala Arg
85 90 95
Cys Phe Leu Met Ala Cys Glu Lys Pro Gly Lys Lys Ser Ile Ala Ala
100 105 110
Cys His Asn Val Gly Leu Leu Ala His Asp Gly Gln Val Asn Glu Asp
115 120 125
Gly Gln Pro Asp Leu Gly Lys Ala Arg Asp Tyr Tyr Thr Arg Ala Cys

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Asp	Gly	Gly	Tyr	Thr	Ser	Ser	Cys	Phe	Asn	Leu	Ser	Ala	Met	Phe	Leu
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Gln	Gly	Ala	Pro	Gly	Phe	Pro	Lys	Asp	Met	Asp	Leu	Ala	Cys	Lys	Tyr
				165					170					175	
Ser	Met	Lys	Ala	Cys	Asp	Leu	Gly	His	Ile	Trp	Ala	Cys	Ala	Asn	Ala
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Ser	Arg	Met	Tyr												
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<210> 4721

<211> 1385

<212> DNA

<213> Homo sapiens

<400> 4721

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<210> 4722

<211> 285

<212> PRT

<213> Homo sapiens

<400> 4722

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		35					40					45			
Leu	Thr	Gly	Glu	Ser	Glu	Ser	Ser	Ser	Glu	Asp	Glu	Phe	Glu	Lys	Glu
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Ser	Ser	Leu	Gly	Thr	Gly	Ser	Ser	Ser	Gly	Asn	Gly	Lys	Val	Ala	Thr
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Ala	Pro	Thr	Arg	Tyr	Tyr	Asp	Asp	Ile	Tyr	Phe	Asp	Ser	Asp	Ser	Glu
			100					105					110		
Asp	Glu	Asp	Arg	Ala	Val	Gln	Val	Thr	Lys	Lys	Lys	Lys	Lys	Lys	Gln
		115					120					125			
His	Lys	Ile	Pro	Thr	Asn	Asp	Glu	Leu	Leu	Tyr	Asp	Pro	Glu	Lys	Asp
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Asn	Arg	Asp	Gln	Ala	Trp	Val	Asp	Ala	Gln	Arg	Arg	Gly	Tyr	His	Gly
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Leu	Gly	Pro	Gln	Arg	Ser	Arg	Gln	Gln	Gln	Pro	Val	Pro	Asn	Ser	Asp
				165					170					175	
Ala	Val	Leu	Asn	Cys	Pro	Ala	Cys	Met	Thr	Thr	Leu	Cys	Leu	Asp	Cys
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Gln	Arg	His	Glu	Ser	Tyr	Lys	Thr	Gln	Tyr	Arg	Ala	Met	Phe	Val	Met
		195					200					205			
Asn	Cys	Ser	Ile	Asn	Lys	Glu	Glu	Val	Leu	Arg	Tyr	Lys	Ala	Ser	Glu
		210				215					220				
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Asp	Ala	Ala	Glu	Lys	Ala	Glu	Thr	Asp	Val	Glu	Glu	Ile	Tyr	His	Pro
				245					250					255	
Val	Met	Cys	Thr	Glu	Cys	Ser	Thr	Glu	Val	Ala	Val	Tyr	Asp	Lys	Asp
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<211> 1213
<212> DNA
<213> Homo sapiens

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<210> 4724
<211> 54
<212> PRT
<213> Homo sapiens

<400> 4724

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 Phe Leu Pro Ala Gly Asp
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<210> 4725

<211> 366

<212> DNA

<213> Homo sapiens

<400> 4725

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<210> 4726

<211> 122

<212> PRT

<213> Homo sapiens

<400> 4726

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 20 25 30
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 35 40 45
 His Met Cys Thr Gly Ala Cys Ala Cys Val Asn Thr Cys Ser His Val
 50 55 60
 Cys Thr Cys Xaa Ser Cys Pro Cys Xaa Tyr Val His Thr Cys Leu Cys
 65 70 75 80
 Met His Ala Cys Ile Ala Val Cys Pro Tyr Pro His Val Arg Ile His
 85 90 95
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<210> 4727

<211> 2031

<212> DNA

<213> Homo sapiens

<400> 4727

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1440

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<210> 4728

<211> 328

<212> PRT

<213> Homo sapiens

<400> 4728

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Ala	Glu	Gly	Arg	Val	Ala	Leu	Ala	Arg	Ala	Ala	Asp	Cys	Glu	Val	Glu
			20					25					30		
Gln	Trp	Asp	Ser	Asp	Glu	Pro	Ile	Pro	Ala	Lys	Glu	Leu	Glu	Arg	Gly
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Val	Ala	Gly	Ala	His	Gly	Leu	Leu	Cys	Leu	Leu	Ser	Asp	His	Val	Asp
	50					55					60				
Lys	Arg	Ile	Leu	Asp	Ala	Ala	Gly	Ala	Asn	Leu	Lys	Val	Ile	Ser	Thr
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Met	Ser	Val	Gly	Ile	Asp	His	Leu	Ala	Leu	Asp	Glu	Ile	Lys	Lys	Arg
				85					90					95	
Gly	Ile	Arg	Val	Gly	Tyr	Thr	Pro	Asp	Val	Leu	Thr	Asp	Thr	Thr	Ala
			100					105					110		
Glu	Leu	Ala	Val	Ser	Leu	Leu	Leu	Thr	Thr	Cys	Arg	Arg	Leu	Pro	Glu
		115					120					125			
Ala	Ile	Glu	Glu	Val	Lys	Asn	Gly	Gly	Trp	Thr	Ser	Trp	Lys	Pro	Leu
	130					135					140				
Trp	Leu	Cys	Gly	Tyr	Gly	Leu	Thr	Gln	Ser	Thr	Val	Gly	Ile	Ile	Gly
145					150				155					160	
Leu	Gly	Arg	Ile	Gly	Gln	Ala	Ile	Ala	Arg	Arg	Leu	Lys	Pro	Phe	Gly
			165					170						175	
Val	Gln	Arg	Phe	Leu	Tyr	Thr	Gly	Arg	Gln	Pro	Arg	Pro	Glu	Glu	Ala
		180						185					190		
Ala	Glu	Phe	Gln	Ala	Glu	Phe	Val	Ser	Thr	Pro	Glu	Leu	Ala	Ala	Gln
	195						200				205				
Ser	Asp	Phe	Ile	Val	Val	Ala	Cys	Ser	Leu	Thr	Pro	Ala	Thr	Glu	Gly

210	215	220
Leu Cys Asn Lys Asp Phe Phe Gln Lys Met Lys Glu Thr Ala Val Phe		
225	230	235
Ile Asn Ile Ser Arg Gly Asp Val Val Asn Gln Asp Asp Leu Tyr Gln		240
	245	250
Ala Leu Ala Ser Gly Lys Ile Ala Ala Ala Gly Leu Asp Val Thr Ser		255
	260	265
Pro Glu Pro Leu Pro Thr Asn His Pro Leu Leu Thr Leu Lys Asn Cys		270
	275	280
Val Ile Leu Pro His Ile Gly Ser Ala Thr His Arg Thr Arg Asn Thr		285
	290	295
Met Ser Leu Leu Ala Ala Asn Asn Leu Leu Ala Gly Leu Arg Gly Glu		300
305	310	315
Pro Met Pro Ser Glu Leu Lys Leu		320
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<210> 4729

<211> 753

<212> DNA

<213> Homo sapiens

<400> 4729

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<210> 4730

<211> 148

<212> PRT

<213> Homo sapiens

<400> 4730

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      20           25           30
Lys Gln Ala Ala Leu Lys Ser His Tyr Ala Asp Val Asp Pro Glu Asn
      35           40           45
Gln Asn Phe Leu Leu Glu Ser Asn Leu Gly Lys Lys Lys Tyr Glu Thr
      50           55           60
Glu Phe His Pro Gly Thr Thr Ser Phe Gly Met Ser Val Phe Asn Leu
65           70           75           80
Ser Asn Ala Ile Val Gly Ser Gly Ile Leu Gly Leu Ser Tyr Ala Met
      85           90           95
Ala Asn Thr Gly Ile Ala Leu Phe Ile Ile Leu Leu Thr Phe Val Ser
      100          105          110
Ile Phe Ser Leu Tyr Ser Val His Leu Leu Leu Lys Thr Ala Asn Glu
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<210> 4731

<211> 2417

<212> DNA

<213> Homo sapiens

<400> 4731

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780

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<210> 4732
<211> 129
<212> PRT
<213> Homo sapiens

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Ala Arg Met Ala Gly His Val Ser Val Leu Val Ser His Phe Pro Pro
35 40 45
Ser Val Thr Tyr Leu Gly Ile Pro Gln Gly Leu Leu Glu Cys Asp Cys
50 55 60
Pro Leu Pro Ser Cys Leu Gly Tyr Lys Ser Trp Pro Tyr Val Pro Ala
65 70 75 80
Val Arg Gly Ser Gly Asn Pro Thr Gln Pro Pro Val Leu Gly Trp Ser
85 90 95
Val Ser Ile His Pro Leu Val Val Ile Glu Ala Ala Leu Pro Val Leu
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Lys

<210> 4733
<211> 543
<212> DNA
<213> Homo sapiens

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<210> 4734
 <211> 181
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Gln Cys Val Ser Trp Asn Lys Glu Gln Gly Phe Ile Ala Cys Gly Gly
 50 55 60
 Glu Asp Gly Leu Leu Lys Val Leu Lys Leu Glu Thr Gln Thr Asp Asp
 65 70 75 80
 Ala Lys Leu Arg Gly Leu Ala Ala Pro Ser Asn Leu Ser Met Asn Gln
 85 90 95
 Thr Leu Glu Gly His Ser Gly Ser Val Gln Val Val Thr Trp Asn Glu
 100 105 110
 Gln Tyr Gln Lys Leu Thr Thr Ser Asp Glu Asn Gly Leu Ile Ile Val
 115 120 125
 Trp Met Leu Tyr Lys Gly Ser Trp Ile Glu Glu Met Ile Asn Asn Arg
 130 135 140
 Asn Lys Ser Val Val Arg Ser Met Ser Trp Asn Ala Asp Gly Gln Lys
 145 150 155 160
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<210> 4735
 <211> 300
 <212> DNA
 <213> Homo sapiens

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<210> 4736
 <211> 93
 <212> PRT
 <213> Homo sapiens

<400> 4736

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          20           25           30
Lys Ser Gly Ala Ala Gly Gly Ser Ala Lys Ser Ser Ser Asn Gly Pro
          35           40           45
Val Ala Ser Ala Gln Tyr Val Ser Gln Ala Lys Ala Ser Ala Leu Gln
          50           55           60
Gln Gln Gln Tyr Tyr Gln Trp Tyr Gln Gln Asp Asn Tyr Ala Tyr Pro
65           70           75           80
Tyr Ser Tyr Tyr Tyr Pro Met Pro Pro Gly Pro Gly Met
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<210> 4737

<211> 2602

<212> DNA

<213> Homo sapiens

<400> 4737

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<210> 4738
 <211> 756
 <212> PRT
 <213> Homo sapiens

<400> 4738
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 35 40 45
 Arg Gly Arg Ser Trp Gly Leu Glu Gly Ser Gln Ala Leu Ser Gln Gln
 50 55 60
 Ala Glu Val Ile Val Arg Gln Leu Gln Glu Leu Arg Arg Leu Glu Glu
 65 70 75 80
 Glu Val Arg Leu Leu Arg Glu Thr Ser Leu Gln Gln Lys Met Arg Leu
 85 90 95
 Glu Ala Gln Ala Met Glu Leu Glu Ala Leu Ala Arg Ala Glu Lys Ala
 100 105 110
 Gly Arg Ala Glu Ala Glu Gly Leu Arg Ala Ala Leu Ala Gly Ala Glu
 115 120 125
 Val Val Arg Lys Asn Leu Glu Glu Gly Arg Gln Arg Glu Leu Glu Glu
 130 135 140
 Val Gln Arg Leu His Gln Glu Gln Leu Ser Ser Leu Thr Gln Ala His
 145 150 155 160
 Glu Glu Ala Leu Ser Ser Leu Thr Ser Lys Ala Glu Gly Leu Glu Lys
 165 170 175
 Ser Leu Ser Ser Leu Glu Thr Arg Arg Ala Gly Glu Ala Lys Glu Leu
 180 185 190
 Ala Glu Ala Gln Arg Glu Ala Glu Leu Leu Arg Lys Gln Leu Ser Lys
 195 200 205
 Thr Gln Glu Asp Leu Glu Ala Gln Val Thr Leu Val Glu Asn Leu Arg
 210 215 220
 Lys Tyr Val Gly Glu Gln Val Pro Ser Glu Val His Ser Gln Thr Trp
 225 230 235 240
 Glu Leu Glu Arg Gln Lys Leu Leu Glu Thr Met Gln Leu Leu Gln Glu
 245 250 255
 Asp Arg Asp Ser Leu His Ala Thr Ala Glu Leu Leu Gln Val Arg Val
 260 265 270
 Gln Ser Leu Thr His Ile Leu Ala Leu Gln Glu Glu Glu Leu Thr Arg
 275 280 285
 Lys Val Gln Pro Ser Asp Ser Leu Glu Pro Glu Phe Thr Arg Lys Cys
 290 295 300
 Gln Ser Leu Leu Asn Arg Trp Arg Glu Lys Val Phe Ala Leu Met Val
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 Gln Leu Lys Ala Gln Glu Leu Glu His Ser Asp Ser Val Lys Gln Leu
 325 330 335
 Lys Gly Gln Val Ala Ser Leu Gln Glu Lys Val Thr Ser Gln Ser Gln
 340 345 350
 Glu Gln Ala Ile Leu Gln Arg Ser Leu Gln Asp Lys Ala Ala Glu Val
 355 360 365
 Glu Val Glu Arg Met Gly Ala Lys Gly Leu Gln Leu Glu Leu Ser Arg

370 375 380
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 Glu Gln Leu Arg Leu Val Val Asn Ala Val Ser Ser Ser Gln Ile Trp
 405 410 415
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 Ser Leu Asn Asn Arg Leu Ser Tyr Ala Val Arg Lys Val His Thr Ile
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 Arg Gly Leu Ile Ala Arg Lys Leu Ala Leu Ala Gln Leu Arg Gln Glu
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 Ser Cys Pro Leu Pro Pro Pro Val Thr Asp Val Ser Leu Glu Leu Gln
 465 470 475 480
 Gln Leu Arg Glu Glu Arg Asn Arg Leu Asp Ala Glu Leu Gln Leu Ser
 485 490 495
 Ala Arg Leu Ile Gln Gln Glu Val Gly Arg Ala Arg Glu Gln Gly Glu
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 Val Ala Arg Gln Gly Gln Gln Glu Ser Thr Glu Glu Ala Ala Ser Leu
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 565 570 575
 Glu Lys Val Ala Glu Val Glu Thr Arg Leu Arg Glu Gln Leu Ser Asp
 580 585 590
 Thr Glu Arg Arg Leu Asn Glu Ala Arg Arg Glu His Ala Lys Ala Val
 595 600 605
 Val Ser Leu Arg Gln Ile Gln Arg Arg Ala Ala Gln Glu Lys Glu Arg
 610 615 620
 Ser Gln Glu Leu Arg Arg Leu Gln Glu Glu Ala Arg Lys Glu Glu Gly
 625 630 635 640
 Gln Arg Leu Ala Arg Arg Leu Gln Glu Leu Glu Arg Asp Lys Asn Leu
 645 650 655
 Met Leu Ala Thr Leu Gln Gln Glu Gly Leu Leu Ser Arg Tyr Lys Gln
 660 665 670
 Gln Arg Leu Leu Thr Val Leu Pro Ser Leu Leu Asp Lys Lys Lys Ser
 675 680 685
 Val Val Ser Ser Pro Arg Pro Pro Glu Cys Ser Ala Ser Ala Pro Val
 690 695 700
 Ala Ala Ala Val Pro Thr Arg Glu Ser Ile Lys Gly Ser Leu Ser Val
 705 710 715 720
 Leu Leu Asp Asp Leu Gln Asp Leu Ser Glu Ala Ile Ser Lys Glu Glu
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 Gln Met Ser Ser
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<210> 4739

<211> 684

<212> DNA

<213> Homo sapiens

<400> 4739

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<210> 4740

<211> 119

<212> PRT

<213> Homo sapiens

<400> 4740

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			20					25					30		
Trp	Leu	Ser	Asp	Lys	Asp	Lys	Glu	Lys	Ile	Gln	Met	Ser	Thr	Arg	Ala
		35				40					45				
Val	His	Ile	Leu	Trp	Val	Ser	Trp	Glu	Gln	Gly	Trp	Ala	Val	Pro	Glu
	50				55					60					
Ala	Pro	Ser	Gln	Pro	Ala	Pro	Gln	Ala	Ala	Asn	Gly	Ser	Leu	Leu	Leu
65				70					75					80	
Gly	Gln	Gly	Ile	Cys	Gly	Gln	Glu	Ser	Thr	Leu	Val	Arg	Arg	Arg	Leu
			85			90							95		
Ala	Ser	Asn	Thr	Gln	Pro	Cys	Leu	Arg	Ala	Pro	Ala	Val	Glu	Gly	Ser
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<210> 4741

<211> 411

<212> DNA

<213> Homo sapiens

<400> 4741

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 180
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 240
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 300
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<210> 4742

<211> 109

<212> PRT

<213> Homo sapiens

<400> 4742

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 20 25 30
 Pro Glu Gly Gly Val Ser Lys Phe Ser Pro Pro Lys Asn Gln Ile Leu
 35 40 45
 Ser Phe Ile Pro Pro Pro Phe Pro Pro Phe Gly Phe Phe Lys Lys Phe
 50 55 60
 Pro Ser Phe Phe Arg Lys Gly Lys Gly Gly Glu Arg Gly Gly Gln Arg
 65 70 75 80
 Lys Thr Pro Phe Phe Phe Leu Arg Lys Lys Arg Glu Lys Lys Lys Lys
 85 90 95
 Lys Glu Arg Lys Thr Pro Val Asp Leu Arg Glu Val Asn
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<210> 4743

<211> 473

<212> DNA

<213> Homo sapiens

<400> 4743

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 gagtgattga gtcccggtat ctgcagtatg aaaagaagac aacccaaaag gctcctgcag
 180
 gagatgggtc acagaccga gggaagatgt ctgaagggtg aaggaaatcc agcctgctcc
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<212> PRT
<213> Homo sapiens
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<210> 4745
<211> 666
<212> DNA
<213> Homo sapiens
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3920

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 ccaaggatga ctgtggaaga gcaaattggaa agaataagaa gatatacaaca agcgtgcctg
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<210> 4746
 <211> 221
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Gln Asp Val Met Glu Gly Leu Ser Lys His Lys Gln Gln Arg Gly Thr
 50 55 60
 Thr Glu Ile Gly Met Ile Gly Ser Lys Pro Phe Ser Thr Val Lys Tyr
 65 70 75 80
 Lys Asn Glu Gly Pro Asp Tyr Arg Leu Tyr Lys Ser Glu Pro Glu Leu
 85 90 95
 Thr Thr Val Ala Glu Val Asp Glu Ser Asn Gly Glu Glu Lys Ser Glu
 100 105 110
 Pro Val Ser Glu Ile Glu Thr Ser Val Val Lys Gly Ser His Phe Pro
 115 120 125
 Val Gly Val Val Pro Pro Arg Ala Lys Ser Pro Thr Pro Glu Ser Ser
 130 135 140
 Thr Ile Ala Ser Tyr Val Thr Leu Arg Lys Thr Lys Lys Met Met Asp
 145 150 155 160
 Leu Arg Thr Glu Arg Pro Arg Ser Ala Val Glu Gln Leu Cys Leu Ala
 165 170 175
 Glu Ser Thr Arg Pro Arg Met Thr Val Glu Glu Gln Met Glu Arg Ile
 180 185 190
 Arg Arg Tyr Gln Gln Ala Cys Leu Arg Glu Lys Lys Lys Gly Leu Asn
 195 200 205
 Val Ile Gly Ala Ser Asp Gln Ser Pro Leu Gln Ser Pro
 210 215 220

<210> 4747
 <211> 1091
 <212> DNA
 <213> Homo sapiens

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 420
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 960
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<210> 4748

<211> 273

<212> PRT

<213> Homo sapiens

<400> 4748

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Met	Glu	Glu	Glu	Thr	His	Thr	Asp	Ala	Lys	Ile	Arg	Ala	Glu	Asn	Gly
			20					25					30		
Thr	Gly	Ser	Ser	Pro	Arg	Gly	Pro	Gly	Cys	Ser	Leu	Arg	His	Phe	Ala
		35				40					45				
Cys	Glu	Gln	Asn	Leu	Leu	Ser	Arg	Pro	Asp	Gly	Ser	Ala	Ser	Phe	Leu
	50					55				60					
Gln	Gly	Asp	Thr	Ser	Val	Leu	Ala	Gly	Val	Tyr	Gly	Pro	Ala	Glu	Val
65					70					75				80	
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<211> 2196
<212> DNA
<213> Homo sapiens
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660

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2196

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<211> 276
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Val Leu Ala Val Leu Leu Thr Leu Val Phe Trp Lys Leu Ile Arg Ser
 50 55 60
 Arg Arg Ser Ser Gln Arg Ala Val Leu Leu Val Gly Leu Cys Asp Ser
 65 70 75 80
 Gly Lys Thr Leu Leu Phe Val Arg Leu Leu Thr Gly Leu Tyr Arg Asp
 85 90 95
 Thr Gln Thr Ser Ile Thr Asp Ser Cys Ala Val Tyr Arg Val Asn Asn
 100 105 110
 Asn Arg Gly Asn Ser Leu Thr Leu Ile Asp Leu Pro Gly His Glu Ser
 115 120 125
 Leu Arg Leu Gln Phe Leu Glu Arg Phe Lys Ser Ser Ala Arg Ala Ile
 130 135 140
 Val Phe Val Val Asp Ser Ala Ala Phe Gln Arg Glu Val Lys Asp Val
 145 150 155 160
 Ala Glu Phe Leu Tyr Gln Val Leu Ile Asp Ser Met Gly Leu Lys Asn
 165 170 175
 Thr Pro Ser Phe Leu Ile Ala Cys Asn Lys Gln Asp Ile Ala Met Ala
 180 185 190
 Lys Ser Ala Lys Leu Ile Gln Gln Gln Leu Glu Lys Glu Leu Asn Thr
 195 200 205
 Leu Arg Val Thr Arg Ser Ala Ala Pro Ser Thr Leu Asp Ser Ser Ser
 210 215 220
 Thr Ala Pro Ala Gln Leu Gly Lys Lys Gly Lys Glu Phe Glu Phe Ser
 225 230 235 240
 Gln Leu Pro Leu Lys Val Glu Phe Leu Glu Cys Ser Ala Lys Gly Gly
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 Ala Lys Ile Ala
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<210> 4751
 <211> 2777
 <212> DNA
 <213> Homo sapiens

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tctaaacttt cgctactata aaaccaaaaa aaggaattga gatttcacca accccagtgc
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Glu	Gln	Arg	Arg	Pro	Ser	Thr	Ser	Ser	Ala	Ser	Gly	Gln	Trp	Ser	Pro
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Thr	Pro	Glu	Trp	Val	Leu	Ser	Trp	Lys	Ser	Lys	Leu	Pro	Leu	Gln	Thr
			85					90						95	
Ile	Met	Arg	Leu	Leu	Gln	Val	Leu	Val	Pro	Gln	Val	Glu	Lys	Ile	Cys
			100				105						110		
Ile	Asp	Lys	Gly	Leu	Thr	Asp	Glu	Ser	Glu	Ile	Leu	Arg	Phe	Leu	Gln
		115				120					125				
His	Gly	Thr	Leu	Val	Gly	Leu	Leu	Pro	Val	Pro	His	Pro	Ile	Leu	Ile
		130				135				140					
Arg	Lys	Tyr	Gln	Ala	Asn	Ser	Gly	Thr	Ala	Met	Trp	Phe	Arg	Thr	Tyr
145					150				155					160	
Met	Trp	Gly	Val	Ile	Tyr	Leu	Arg	Asn	Val	Asp	Pro	Pro	Val	Trp	Tyr
			165					170					175		
Asp	Thr	Asp	Val	Lys	Leu	Phe	Glu	Ile	Gln	Arg	Val				
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<210> 4757

<211> 272

<212> DNA

<213> Homo sapiens

<400> 4757

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 272

<210> 4758

<211> 90

<212> PRT

<213> Homo sapiens

<400> 4758

Xaa	Met	Glu	Ala	Pro	Thr	Arg	Ile	Arg	Asp	Thr	Pro	Glu	Asp	Ile	Val
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Leu	Glu	Ala	Pro	Ala	Ser	Gly	Leu	Ala	Phe	His	Pro	Ala	Arg	Asp	Leu
			20				25					30			
Leu	Ala	Ala	Gly	Asp	Val	Asp	Gly	Asp	Val	Phe	Val	Phe	Ser	Tyr	Ser
		35				40					45				
Cys	Gln	Glu	Gly	Glu	Thr	Lys	Glu	Leu	Val	Ile	Arg	Ser	His	Leu	Lys
	50					55				60					
Ala	Cys	Arg	Ala	Val	Ala	Phe	Ser	Glu	Asp	Gly	Gln	Lys	Leu	Ile	Thr
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Val	Ser	Lys	Asp	Lys	Ala	Ile	His	Val	Leu						
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<210> 4759

<211> 1087

<212> DNA

<213> Homo sapiens

<400> 4759

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 180
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 480
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 540
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 600

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 960
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<210> 4760
 <211> 78
 <212> PRT
 <213> Homo sapiens

<400> 4760
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 Lys Gly Gln Thr Lys Thr Leu Phe Glu Phe Ser Ser Ser Arg Ala Gly
 35 40 45
 Phe Leu Pro Leu Trp Asp Val Ala Ala Thr Asp Phe Gly Gln Thr Asn
 50 55 60
 Gln Lys Phe Gly Phe Glu Leu Gly Pro Val Cys Phe Ser Ser
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<210> 4761
 <211> 3973
 <212> DNA
 <213> Homo sapiens

<400> 4761
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 3960
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 3973

<210> 4762
 <211> 251
 <212> PRT
 <213> Homo sapiens

<400> 4762
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 20 25 30
 Lys Gly Trp Pro Pro Lys Tyr Ser Thr Trp Glu Pro Glu Glu His Ile
 35 40 45
 Leu Asp Pro Arg Leu Val Met Ala Tyr Glu Glu Lys Glu Glu Arg Asp
 50 55 60
 Arg Ala Ser Gly Tyr Arg Lys Arg Gly Pro Lys Pro Lys Arg Leu Leu
 65 70 75 80
 Leu Gln Arg Leu Tyr Ser Met Asp Leu Arg Ser Ser His Lys Ala Lys
 85 90 95
 Gly Lys Glu Lys Leu Cys Phe Ser Leu Thr Cys Pro Leu Gly Ser Gly
 100 105 110
 Ser Pro Glu Gly Val Val Lys Ala Gly Ala Pro Glu Leu Val Asp Lys
 115 120 125
 Gly Pro Leu Val Pro Thr Leu Pro Phe Pro Leu Arg Lys Pro Arg Lys
 130 135 140
 Ala His Lys Tyr Leu Arg Leu Ser Arg Lys Lys Phe Pro Pro Arg Gly
 145 150 155 160
 Pro Asn Leu Glu Ser His Ser His Arg Arg Glu Leu Phe Leu Gln Glu
 165 170 175
 Pro Pro Ala Pro Asp Val Leu Gln Ala Ala Gly Glu Trp Glu Pro Ala
 180 185 190
 Ala Gln Pro Pro Glu Glu Glu Ala Asp Ala Asp Leu Ala Glu Gly Pro
 195 200 205
 Pro Pro Trp Thr Pro Ala Leu Pro Ser Ser Glu Val Thr Val Thr Asp
 210 215 220
 Ile Thr Ala Asn Ser Ile Thr Val Thr Phe Arg Glu Ala Gln Ala Ala
 225 230 235 240
 Glu Gly Phe Phe Arg Asp Arg Ser Gly Lys Phe
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<210> 4763
<211> 2158
<212> DNA
<213> Homo sapiens

<400> 4763
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180
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1440

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<210> 4764

<211> 719

<212> PRT

<213> Homo sapiens

<400> 4764

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			20					25					30		
Leu	Lys	Lys	Arg	Glu	Ile	Lys	Leu	Ser	Asp	Asp	Phe	Asp	Ser	Pro	Val
		35				40					45				
Lys	Gly	Pro	Leu	Cys	Lys	Ser	Val	Thr	Pro	Thr	Lys	Glu	Phe	Leu	Lys
	50				55					60					
Asp	Glu	Ile	Lys	Gln	Glu	Glu	Glu	Thr	Cys	Lys	Arg	Ile	Ser	Thr	Ile
65				70					75					80	
Thr	Ala	Leu	Gly	His	Glu	Gly	Lys	Gln	Leu	Val	Asn	Gly	Glu	Val	Ser
			85					90					95		
Asp	Glu	Arg	Val	Ala	Pro	Asn	Phe	Lys	Thr	Glu	Pro	Ile	Glu	Thr	Lys
		100						105					110		
Phe	Tyr	Glu	Thr	Lys	Glu	Glu	Ser	Tyr	Ser	Pro	Ser	Lys	Asp	Arg	Asn
	115						120					125			
Ile	Ile	Thr	Glu	Gly	Asn	Gly	Thr	Glu	Ser	Leu	Asn	Ser	Val	Ile	Thr
	130					135					140				
Ser	Met	Lys	Thr	Gly	Glu	Leu	Glu	Lys	Glu	Thr	Ala	Pro	Leu	Arg	Lys
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			165					170					175		
Gln	Ile	Glu	Glu	Pro	Asp	Pro	Pro	Glu	Met	Glu	Thr	Ser	Leu	Asp	Ser

3943

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	645	650
Leu Leu Glu Arg Arg Ser Thr Arg Thr Arg Lys Cys Ile Ser Tyr Arg		655
	660	665
Phe Asp Glu Phe Asp Glu Ala Ile Asp Glu Ala Ile Glu Asp Asp Ile		670
	675	680
Lys Glu Ala Asp Gly Gly Gly Val Gly Arg Gly Lys Asp Ile Ser Thr		685
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Ile Thr Gly His Arg Gly Lys Asp Ile Ser Thr Ile Leu Asp Glu		700
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<210> 4765

<211> 1707

<212> DNA

<213> Homo sapiens

<400> 4765

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<210> 4766

<211> 280

<212> PRT

<213> Homo sapiens

<400> 4766

Leu	Gln	Ala	Lys	Tyr	Asn	Ser	Thr	Arg	Asp	Met	Leu	Asp	Asp	Asp	Gly
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Asp	Thr	Thr	Met	Ser	Leu	His	Ser	Gln	Ala	Ser	Ala	Thr	Thr	Arg	His
			20					25						30	
Pro	Glu	Pro	Arg	Arg	Thr	Glu	His	Arg	Ala	Pro	Ser	Ser	Thr	Trp	Arg
			35				40						45		
Pro	Val	Ala	Leu	Thr	Leu	Leu	Thr	Leu	Cys	Leu	Val	Leu	Leu	Ile	Gly
			50				55						60		
Leu	Ala	Ala	Leu	Gly	Leu	Leu	Phe	Phe	Gln	Tyr	Tyr	Gln	Leu	Ser	Asn
65						70				75					80
Thr	Gly	Gln	Asp	Thr	Ile	Ser	Gln	Met	Glu	Glu	Arg	Leu	Gly	Asn	Thr
				85					90					95	
Ser	Gln	Glu	Leu	Gln	Ser	Leu	Gln	Val	Gln	Asn	Ile	Lys	Leu	Ala	Gly
			100					105						110	
Ser	Leu	Gln	His	Val	Ala	Glu	Lys	Leu	Cys	Arg	Glu	Leu	Tyr	Asn	Lys
			115				120						125		
Ala	Gly	Ala	His	Arg	Cys	Ser	Pro	Cys	Thr	Glu	Gln	Trp	Lys	Trp	His
			130				135					140			
Gly	Asp	Asn	Cys	Tyr	Gln	Phe	Tyr	Lys	Asp	Ser	Lys	Ser	Trp	Glu	Asp
145					150					155					160
Cys	Lys	Tyr	Phe	Cys	Leu	Ser	Glu	Asn	Ser	Thr	Met	Leu	Lys	Ile	Asn
				165					170					175	
Lys	Gln	Glu	Asp	Leu	Glu	Phe	Ala	Ala	Ser	Gln	Ser	Tyr	Ser	Glu	Phe

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<210> 4768

<211> 460

<212> PRT

<213> Homo sapiens

<400> 4768

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Arg	Ala	Pro	Glu	Val	Ala	Pro	Glu	Glu	Val	Asp	Glu	Ser	Lys	Lys	Glu	20	25	30	
Asp	Phe	Ser	Glu	Ala	Asp	Leu	Val	Asp	Val	Ser	Ala	Tyr	Ser	Gly	Leu	35	40	45	
Gly	Glu	Asp	Ser	Ala	Gly	Ser	Ala	Leu	Glu	Glu	Asp	Asp	Glu	Asp	Asp	50	55	60	
Glu	Gly	Asp	Gly	Glu	Pro	Pro	Tyr	Glu	Pro	Glu	Ser	Gly	Cys	Val	Glu	65	70	75	80
Ile	Pro	Gly	Leu	Ser	Glu	Glu	Glu	Asp	Pro	Ala	Pro	Ser	Arg	Lys	Ile	85	90	95	
His	Phe	Ser	Thr	Ala	Pro	Ile	Gln	Val	Phe	Ser	Thr	Tyr	Ser	Asn	Glu	100	105	110	
Asp	Tyr	Asp	Arg	Arg	Asn	Glu	Asp	Val	Asp	Pro	Met	Ala	Ala	Ser	Ala	115	120	125	
Glu	Tyr	Glu	Leu	Glu	Lys	Arg	Val	Glu	Arg	Leu	Glu	Leu	Phe	Pro	Val	130	135	140	
Glu	Leu	Glu	Lys	Asp	Ser	Glu	Gly	Leu	Gly	Ile	Ser	Ile	Ile	Gly	Met	145	150	155	160
Gly	Ala	Gly	Ala	Asp	Met	Gly	Leu	Glu	Lys	Leu	Gly	Ile	Phe	Val	Lys	165	170	175	
Thr	Val	Thr	Glu	Gly	Gly	Ala	Ala	His	Arg	Asp	Gly	Arg	Ile	Gln	Val	180	185	190	
Asn	Asp	Leu	Leu	Val	Glu	Val	Asp	Gly	Thr	Ser	Leu	Val	Gly	Val	Thr	195	200	205	
Gln	Ser	Phe	Ala	Ala	Ser	Val	Leu	Arg	Asn	Thr	Lys	Gly	Arg	Val	Arg	210	215	220	
Phe	Met	Ile	Gly	Arg	Glu	Arg	Pro	Gly	Glu	Gln	Ser	Glu	Val	Ala	Gln	225	230	235	240
Leu	Ile	Gln	Gln	Thr	Leu	Glu	Gln	Glu	Arg	Trp	Gln	Arg	Glu	Met	Met	245	250	255	
Glu	Gln	Arg	Tyr	Ala	Gln	Tyr	Gly	Glu	Asp	Asp	Glu	Glu	Thr	Gly	Glu	260	265	270	
Tyr	Ala	Thr	Asp	Glu	Asp	Glu	Glu	Leu	Ser	Pro	Thr	Phe	Pro	Gly	Gly				

		275					280					285			
Glu	Met	Ala	Ile	Glu	Val	Phe	Glu	Leu	Ala	Glu	Asn	Glu	Asp	Ala	Leu
	290					295					300				
Ser	Pro	Val	Asp	Met	Glu	Pro	Glu	Lys	Leu	Val	His	Lys	Phe	Lys	Glu
305					310						315				320
Leu	Gln	Ile	Lys	His	Ala	Val	Thr	Glu	Ala	Glu	Ile	Gln	Gln	Leu	Lys
				325					330					335	
Arg	Lys	Leu	Gln	Ser	Leu	Glu	Gln	Glu	Lys	Gly	Arg	Trp	Arg	Val	Glu
			340					345					350		
Lys	Ala	Gln	Leu	Glu	Gln	Ser	Val	Glu	Glu	Asn	Lys	Glu	Arg	Met	Glu
	355						360					365			
Lys	Leu	Glu	Gly	Tyr	Trp	Gly	Glu	Ala	Gln	Ser	Leu	Cys	Gln	Ala	Val
	370					375					380				
Asp	Glu	His	Leu	Arg	Glu	Thr	Gln	Ala	Gln	Tyr	Gln	Ala	Leu	Glu	Arg
385					390					395					400
Lys	Tyr	Ser	Lys	Ala	Lys	Arg	Leu	Ile	Lys	Asp	Tyr	Gln	Gln	Lys	Glu
				405					410					415	
Ile	Glu	Phe	Leu	Lys	Lys	Glu	Thr	Ala	Gln	Arg	Arg	Val	Leu	Glu	Glu
			420					425					430		
Ser	Glu	Leu	Ala	Arg	Lys	Glu	Glu	Met	Asp	Lys	Leu	Leu	Asp	Lys	Ile
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Ser	Glu	Leu	Glu	Gly	Asn	Leu	Gln	Thr	Leu	Arg	Asn				
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<210> 4769
<211> 1533
<212> DNA
<213> Homo sapiens
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180
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240
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300
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360
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420
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480
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540
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600
caagaagacc gttgcagtcc agagatgaga aactggacca gaggcaaatc atgaacagaa
660
cgggagtcaa gagaaggggt ttctaagatg gagaagtggg ggcgggtgtg gatccagtg
720

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 780
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 840
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<210> 4770

<211> 237

<212> PRT

<213> Homo sapiens

<400> 4770

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Lys	Arg	Leu	His	Gln	Thr	His	Arg	Leu	Lys	Glu	Cys	Val	Ala	Pro	Val
			20						25				30		
Leu	Ser	Val	Leu	Thr	Glu	Cys	Ala	Arg	Met	His	Arg	Pro	Ala	Arg	Lys
		35					40					45			
Phe	Leu	Lys	Ala	Gln	Val	Leu	Pro	Pro	Leu	Arg	Asp	Val	Arg	Thr	Arg
	50					55					60				
Pro	Glu	Val	Gly	Asp	Leu	Leu	Arg	Asn	Lys	Leu	Val	Arg	Leu	Met	Thr
65					70				75					80	
His	Leu	Asp	Thr	Asp	Val	Lys	Arg	Val	Ala	Ala	Glu	Phe	Leu	Phe	Val
				85					90					95	
Leu	Cys	Ser	Glu	Ser	Val	Pro	Arg	Phe	Ile	Lys	Tyr	Thr	Gly	Tyr	Gly
			100					105					110		
Asn	Ala	Ala	Gly	Leu	Leu	Ala	Ala	Arg	Gly	Leu	Met	Ala	Gly	Gly	Arg
		115					120					125			
Pro	Glu	Gly	Gln	Tyr	Ser	Glu	Asp	Glu	Asp	Thr	Asp	Thr	Asp	Glu	Tyr
	130					135					140				
Lys	Glu	Ala	Lys	Ala	Ser	Ile	Asn	Pro	Val	Thr	Gly	Arg	Val	Glu	Glu

145					150					155					160
Lys	Pro	Pro	Asn	Pro	Met	Glu	Gly	Met	Thr	Glu	Glu	Gln	Lys	Glu	His
				165					170					175	
Glu	Ala	Met	Lys	Leu	Val	Thr	Met	Phe	Asp	Lys	Leu	Ser	Ser	Pro	Thr
			180					185					190		
Ala	Pro	Phe	Pro	Asn	Arg	Asn	Arg	Val	Ile	Gln	Pro	Met	Gly	Met	Ser
		195					200					205			
Pro	Arg	Gly	His	Leu	Thr	Ser	Leu	Gln	Asp	Ala	Met	Cys	Glu	Thr	Met
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<210> 4771

<211> 2653

<212> DNA

<213> Homo sapiens

<400> 4771

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300
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720
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2653

<210> 4772
 <211> 182
 <212> PRT
 <213> Homo sapiens

<400> 4772
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 35 40 45
 Lys Pro Asp Val Val Gln Asp Lys Glu Thr Glu Arg Asn Leu Gln Arg
 50 55 60
 Ile Ala Thr Arg Gly Val Val Gln Leu Phe Asn Ala Val Gln Lys His
 65 70 75 80
 Gln Lys Asn Val Asp Glu Lys Val Lys Glu Ala Gly Ser Ser Met Arg
 85 90 95
 Lys Arg Ala Lys Leu Ile Ser Thr Val Ser Lys Lys Asp Phe Ile Ser
 100 105 110
 Val Leu Arg Gly Met Asp Gly Ser Thr Asn Glu Thr Ala Ser Ser Arg
 115 120 125
 Lys Lys Pro Lys Ala Lys Gln Thr Glu Val Lys Ser Glu Glu Gly Pro
 130 135 140
 Gly Trp Thr Ile Leu Arg Asp Asp Phe Met Met Gly Ala Ser Met Lys
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 165 170 175
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<210> 4773
 <211> 319
 <212> DNA
 <213> Homo sapiens

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 120
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 300
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 319

<210> 4774
 <211> 91
 <212> PRT

<213> Homo sapiens

<400> 4774

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Ala Thr Glu Gly Asp Lys Ile Pro Lys Cys Cys Arg Pro Gln Pro Arg
      20           25           30
Pro Asn Pro Ser Ser Leu Phe Pro Pro Ser Pro Gln Ala Arg Ala Ala
      35           40           45
Met Gly Trp Arg Val Leu Ala Trp Thr Gln His Pro Ile Ser Ser Ala
      50           55           60
Leu Ser Leu Asp Pro Ala Ser His Leu Leu Ser Ser Gln Gly Gly Gly
65           70           75           80
Ser Trp Glu Pro His Pro Gln Pro Leu His Ala
      85           90

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<210> 4775

<211> 433

<212> DNA

<213> Homo sapiens

<400> 4775

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120
tgggcttaaa catgaaccaa catggcggat gcttcaagca agtgggggtg ctggggcccta
180
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<210> 4776

<211> 97

<212> PRT

<213> Homo sapiens

<400> 4776

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Arg Gly Glu Met Lys Arg Leu Ala Ser Ser Ser Pro Thr Asn Ser Leu
      20           25           30
Leu Trp Leu His Cys Pro Pro Cys Tyr Phe Phe Glu Arg Ala Asn His
      35           40           45
Thr Ala Thr Ser Leu Pro Leu His Leu Leu Ser Leu Leu Leu Leu Thr
      50           55           60
Ile His Ala Ala His Pro Val Thr Ser Phe Gln Phe Leu Leu Thr Phe

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65					70					75					80
Leu	Lys	Arg	Pro	Ser	Leu	Thr	Ile	Leu	Phe	Asn	Ile	Pro	Pro	Arg	Leu
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Asn

<210> 4777

<211> 2200

<212> DNA

<213> Homo sapiens

<400> 4777

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 180
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 960
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 1200
 tttagttatg ggctcaaaga atttattcat ctctaactg atattggaaa ataatggatg
 1260

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 1560
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<212> PRT

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<212> DNA

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1242

<210> 4794
<211> 118
<212> PRT
<213> Homo sapiens

<400> 4794
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35 40 45
Thr Ser Ser Val Ala Gly Arg Gln Pro Gly Ala Phe Ser Glu Glu Lys
50 55 60
Gly Pro Val Ile Ile Pro Gln Met Leu Leu Glu Leu Trp Ala Gln Gly
65 70 75 80
Asn Arg Pro Ile Met Val Leu Pro Glu Gly Leu His Leu Leu Tyr Thr
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Arg His Lys Ile Arg Leu Pro Arg Glu Glu Pro Ser Asp Ser Val Gln
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Arg Ala His Val Thr Ile
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<210> 4795
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<212> DNA
<213> Homo sapiens

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2117

<210> 4796

<211> 541

<212> PRT

<213> Homo sapiens

<400> 4796

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          35          40          45
Gly Ser Ser Glu Leu Arg Ala Gln Ala Cys Thr Ala His Ser Ala Gly
          50          55          60
Val Pro Gly Leu Ser Ile Pro Thr Ser Ser Trp Leu Pro Leu Met Lys
65          70          75          80
Gly Pro Pro Glu Val Ala Gln Ser Asn Ile Gln Thr Gln Pro Val Asn
          85          90          95
Arg Glu Met Asp Ala Ala Gly Phe Asp Phe Ser Leu Pro Cys Thr Gln
          100          105          110
Lys Leu Thr Gln Asn Gly Thr Arg Ser Gln Trp Gly Leu Ser Leu Pro
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Ala Leu Met Thr Glu Gly Ser Val Lys His Gly Leu Gly Asp Val Ser
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Ile Leu Lys Lys Thr Phe Ser Thr Arg Leu Gln Asn Ser Asp Trp Phe
145          150          155          160
Leu Thr Thr Leu Lys Asp Cys Met Thr Leu His Pro Leu Glu Ala Ser
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Pro Pro Gln Asp Lys Gln Pro Ser Ile Met Lys Asp Gln His Cys Met
          180          185          190
Asn Trp Cys Leu Ala Pro Pro Glu Gly Asn Ala Asn Val Ala Phe Ser
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Pro Tyr Gly Phe Leu Ala Trp Gly His Tyr Ile Ser Ala Met Asp Pro
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Cys Thr Leu Leu Pro Leu Ala Gly Pro His Ala Gln Ala Pro Gln Gly
225          230          235          240
Val Ala Pro Lys Val Thr Thr Arg Gly Leu Gly Pro Ala Gly Ala Ser
          245          250          255
Leu Trp Thr Val Tyr Glu Asp Ser Lys Arg Gln Gly Leu Ser Leu Glu
          260          265          270
Ile Val Gln Gly Leu Gln Gly Gln Ala Gly Pro Glu Ser Ile Ser Pro
          275          280          285
Val Val Thr Val Pro Gln Arg Gly Ile Arg Pro Phe Gly Lys Leu Asp
          290          295          300
Arg Asn Thr Arg Met Ala Ser Leu Asp Cys Lys Ser Leu Glu Trp Gln
305          310          315          320
Pro Leu Ala Ile Leu Leu Glu Gln Lys Asn Met Ala Ala Asp Gly Pro
          325          330          335
Val Leu Asn Ser Pro Glu Pro Lys Pro Ala Gln Gly Ser Cys Phe Leu
          340          345          350
Leu Gln Arg Val Ala Ser Glu Val Leu Cys Ala Thr Val Pro Ala Arg
          355          360          365
Gly Ile Gln Gly Trp Pro Glu Pro Lys Pro Ser Pro Gly Ser Glu Leu
          370          375          380
Ser Ala Leu Lys Ala His Glu Val Leu Gln Ile Met Leu Gly Leu Pro
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<210> 4797
<211> 2848
<212> DNA
<213> Homo sapiens
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3978

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<210> 4798

<211> 401

<212> PRT

<213> Homo sapiens

<400> 4798

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Phe	Met	Tyr	Ile	Arg	Tyr	Thr	Gln	Pro	Pro	Thr	Asp	Leu	Trp	Asp	Trp	20	25	30	
Phe	Glu	Ser	Phe	Leu	Asp	Asp	Glu	Glu	Asp	Leu	Asp	Val	Lys	Ala	Gly	35	40	45	
Gly	Gly	Cys	Val	Met	Thr	Ile	Gly	Glu	Met	Leu	Arg	Ser	Phe	Leu	Thr	50	55	60	
Lys	Leu	Glu	Trp	Phe	Ser	Thr	Leu	Phe	Pro	Arg	Ile	Pro	Val	Pro	Val	65	70	75	80
Gln	Lys	Asn	Ile	Asp	Gln	Gln	Ile	Lys	Thr	Arg	Pro	Arg	Lys	Ile	Lys	85	90	95	
Lys	Asp	Gly	Lys	Glu	Gly	Ala	Glu	Glu	Ile	Asp	Arg	His	Val	Glu	Arg	100	105	110	
Arg	Arg	Ser	Arg	Ser	Pro	Arg	Arg	Ser	Leu	Ser	Pro	Arg	Arg	Ser	Pro	115	120	125	
Arg	Arg	Ser	Arg	Ser	Arg	Ser	His	His	Arg	Glu	Gly	His	Gly	Ser	Ser	130	135	140	
Ser	Phe	Asp	Arg	Glu	Leu	Glu	Arg	Glu	Lys	Glu	Arg	Gln	Arg	Leu	Glu	145	150	155	160
Arg	Glu	Ala	Lys	Glu	Arg	Glu	Lys	Glu	Arg	Arg	Arg	Ser	Arg	Ser	Ile	165	170	175	
Asp	Arg	Gly	Leu	Glu	Arg	Arg	Arg	Ser	Arg	Ser	Arg	Glu	Arg	His	Arg	180	185	190	
Ser	Arg	Ser	Arg	Ser	Arg	Asp	Arg	Lys	Gly	Asp	Arg	Arg	Asp	Arg	Asp	195	200	205	
Arg	Glu	Arg	Glu	Lys	Glu	Asn	Glu	Arg	Gly	Arg	Arg	Arg	Asp	Arg	Asp	210	215	220	
Tyr	Asp	Lys	Glu	Arg	Gly	Asn	Glu	Arg	Glu	Lys	Glu	Arg	Glu	Arg	Ser	225	230	235	240
Arg	Glu	Arg	Ser	Lys	Glu	Gln	Arg	Ser	Arg	Gly	Glu	Val	Glu	Glu	Lys	245	250	255	
Lys	His	Lys	Glu	Asp	Lys	Asp	Asp	Arg	Arg	His	Arg	Asp	Asp	Lys	Arg	260	265	270	
Asp	Ser	Lys	Lys	Glu	Lys	Lys	His	Ser	Arg	Ser	Arg	Ser	Arg	Glu	Arg				

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      290              295              300
Ser Arg Ser Lys Glu Lys Ser Ser Lys His Lys Asn Glu Ser Lys Glu
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Lys Ser Asn Lys Arg Ser Arg Ser Gly Ser Gln Gly Arg Thr Asp Ser
      325              330              335
Val Glu Lys Ser Lys Lys Arg Glu His Ser Pro Ser Lys Glu Lys Ser
      340              345              350
Arg Lys Arg Ser Arg Ser Lys Glu Arg Ser His Lys Arg Asp His Ser
      355              360              365
Asp Ser Lys Asp Gln Ser Asp Lys His Asp Arg Arg Arg Ser Gln Ser
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Ile Glu Gln Glu Ser Gln Glu Lys Gln His Lys Asn Lys Asp Glu Thr
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<210> 4799

<211> 358

<212> DNA

<213> Homo sapiens

<400> 4799

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<210> 4800

<211> 119

<212> PRT

<213> Homo sapiens

<400> 4800

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      20              25              30
Pro Pro Cys Gly His Arg Gly Ala Leu Asp Gln Pro His His Arg Val
      35              40              45
Ala Gln Pro His Leu Gln Val Val Arg Gln Arg Ser Pro Pro Ala Ser
      50              55              60
Trp Ser Pro Pro Pro Arg Ala Leu Ser His Val Phe Leu Phe Gly Asp
65              70              75              80
Arg Pro Phe Trp Trp Val His Glu Ser Gly Tyr Tyr Ser Gln Ala Pro

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Pro Ser Gly His Cys Met Ile					
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<210> 4801

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<212> DNA

<213> Homo sapiens

<400> 4801

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1260

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<210> 4802

<211> 377

<212> PRT

<213> Homo sapiens

<400> 4802

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			20					25					30		
Ser	Thr	Leu	Gly	Ala	Gly	Ile	Val	Ile	Ala	Glu	Ala	Leu	Gln	Asn	Gln
		35					40					45			
Leu	Ala	Trp	Leu	Glu	Asn	Val	Trp	Leu	Trp	Ile	Thr	Phe	Leu	Gly	Asp
	50					55					60				
Pro	Lys	Ile	Leu	Phe	Leu	Phe	Tyr	Phe	Pro	Ala	Ala	Tyr	Tyr	Ala	Ser
65					70					75					80
Arg	Arg	Val	Gly	Ile	Ala	Val	Leu	Trp	Ile	Ser	Leu	Ile	Thr	Glu	Trp
				85					90					95	
Leu	Asn	Leu	Ile	Phe	Lys	Trp	Phe	Leu	Phe	Gly	Asp	Arg	Pro	Phe	Trp
			100					105					110		
Trp	Val	His	Glu	Ser	Gly	Tyr	Tyr	Ser	Gln	Ala	Pro	Ala	Gln	Val	His
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Gln	Phe	Pro	Ser	Ser	Cys	Glu	Thr	Gly	Pro	Gly	Ser	Pro	Ser	Gly	His
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Cys	Met	Ile	Thr	Gly	Ala	Ala	Leu	Trp	Pro	Ile	Met	Thr	Ala	Leu	Ser
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Ser	Gln	Val	Ala	Thr	Arg	Ala	Arg	Ser	Arg	Trp	Val	Arg	Val	Met	Pro
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Ser	Leu	Ala	Tyr	Cys	Thr	Phe	Leu	Leu	Ala	Val	Gly	Leu	Ser	Arg	Ile
			180					185					190		
Phe	Ile	Leu	Ala	His	Phe	Pro	His	Gln	Val	Leu	Ala	Gly	Leu	Ile	Thr
		195				200						205			
Gly	Ala	Val	Leu	Gly	Trp	Leu	Met	Thr	Xaa	Pro	Glu	Cys	Leu	Trp	Ser
	210					215					220				
Gly	Ser	Xaa	Ser	Phe	Tyr	Gly	Leu	Thr	Ala	Leu	Ala	Leu	Met	Leu	Gly
225					230					235					240
Thr	Ser	Leu	Ile	Tyr	Trp	Thr	Leu	Phe	Thr	Leu	Gly	Leu	Asp	Leu	Ser
				245					250					255	
Trp	Ser	Ile	Ser	Leu	Ala	Phe	Lys	Trp	Cys	Glu	Arg	Pro	Glu	Trp	Ile
			260					265					270		
His	Val	Asp	Ser	Arg	Pro	Phe	Ala	Ser	Leu	Ser	Arg	Asp	Ser	Gly	Ala
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Ala	Leu	Gly	Leu	Gly	Ile	Ala	Leu	His	Ser	Pro	Cys	Tyr	Ala	Gln	Val
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Ile Ser Leu Phe Tyr Ile Phe Asn Phe Leu Lys Tyr Thr Leu Trp Pro
              340              345              350
Cys Leu Val Leu Ala Leu Val Pro Trp Ala Val His Met Phe Ser Ala
              355              360              365
Gln Glu Ala Pro Pro Ile His Ser Ser
              370              375

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<210> 4803
 <211> 564
 <212> DNA
 <213> Homo sapiens

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<400> 4803
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120
ccaaaacctg ctaatgcctg atttccatta cgtgctactc ctcaaattggc agcggcttct
180
gaatattaca gagatggtgt gctgtttgct tttctctttt gttgtagcat aaaactgttc
240
attttagctt agtgacattt gtcaagaata gcaacctttt tgcttccaag ggacttgaag
300
gaagttaa at ttagatgctt tcctctcttc ttattttgtg gaggtatttc ctgttcagta
360
gcaaatacagt tatagaatat attagcattg ttatatttta aactaatgac taatcatttc
420
agctttattc atactgttgc attttatatt tcacagggag caatagaaaa agtgaaagaa
480
agtgacaaac tagttgcaac aagtaaaatc accctacaag acaaacagaa catgggtgaag
540
agagtcagca tcatgtctta cgcg
564

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<210> 4804
 <211> 53
 <212> PRT
 <213> Homo sapiens

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<400> 4804
Met Thr Asn His Phe Ser Phe Ile His Thr Val Ala Phe Tyr Ile Ser
1          5          10          15
Gln Gly Ala Ile Glu Lys Val Lys Glu Ser Asp Lys Leu Val Ala Thr
20          25          30
Ser Lys Ile Thr Leu Gln Asp Lys Gln Asn Met Val Lys Arg Val Ser
35          40          45
Ile Met Ser Tyr Ala
50

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<210> 4805
 <211> 1619

<212> DNA

<213> Homo sapiens

<400> 4805

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aaatccatgc agaaaaaact tcggagtaat tggaagattc agagcttaaa agatgaaatc
180
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240
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300
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360
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420
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480
aaggctgtgc tggcgatcat tgatgaggaa agcagtggaa acaatgccca ggctctcacc
540
tttgtgtatc cttttggtgc cacattgagt gtcatgaaac cagcagtggc ggttctgtct
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720
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780
atccacctaa accagattga tgctgaggac ccagagattt ctgactacat gatgctgcc
840
tacacagcca ccctatcaa gcggaatcga gagtgtctcc aggagagtga tgagatccca
900
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960
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1080
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1320
gacatcgata caagtgaac agcattccag acaatttct gaagaccatg cctcttgaag
1380
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1440
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1500

aataactcaga taggtataag atttttcaca aaatccttat gtaagataca ttccattttt
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 aaaaattaaa tgtatggttg catctgtctt tttataccct aaaaaaaaaa aaaaaaaaaa
 1619

<210> 4806
 <211> 438
 <212> PRT
 <213> Homo sapiens

<400> 4806
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 20 25 30
 Arg Ser Asn Trp Lys Ile Gln Ser Leu Lys Asp Glu Ile Thr Ser Glu
 35 40 45
 Lys Leu Asn Gly Val Lys Leu Trp Ile Thr Ala Gly Pro Arg Glu Lys
 50 55 60
 Phe Thr Ala Ala Glu Phe Glu Ile Leu Lys Lys Tyr Leu Asp Thr Gly
 65 70 75 80
 Gly Asp Val Leu Val Met Leu Gly Glu Gly Gly Glu Ser Arg Phe Asp
 85 90 95
 Thr Asn Ile Asn Phe Leu Leu Glu Glu Tyr Gly Ile Met Val Asn Asn
 100 105 110
 Asp Ala Val Val Arg Asn Val Tyr His Lys Tyr Phe His Pro Lys Glu
 115 120 125
 Ala Leu Val Ser Ser Gly Val Leu Asn Arg Glu Ile Ser Arg Ala Ala
 130 135 140
 Gly Lys Ala Val Leu Ala Ile Ile Asp Glu Glu Ser Ser Gly Asn Asn
 145 150 155 160
 Ala Gln Ala Leu Thr Phe Val Tyr Pro Phe Gly Ala Thr Leu Ser Val
 165 170 175
 Met Lys Pro Ala Val Ala Val Leu Ser Thr Gly Ser Val Cys Phe Pro
 180 185 190
 Leu Asn Arg Pro Ile Leu Ala Phe Tyr His Ser Lys Asn Gln Gly Gly
 195 200 205
 Lys Leu Ala Val Leu Gly Ser Cys His Met Phe Ser Asp Gln Tyr Leu
 210 215 220
 Asp Lys Glu Glu Asn Ser Lys Ile Met Asp Val Val Val Phe Gln Trp
 225 230 235 240
 Leu Thr Thr Gly Asp Ile His Leu Asn Gln Ile Asp Ala Glu Asp Pro
 245 250 255
 Glu Ile Ser Asp Tyr Met Met Leu Pro Tyr Thr Ala Thr Leu Ser Lys
 260 265 270
 Arg Asn Arg Glu Cys Leu Gln Glu Ser Asp Glu Ile Pro Arg Asp Phe
 275 280 285
 Thr Thr Leu Phe Asp Leu Ser Ile Phe Gln Leu Asp Thr Thr Ser Phe
 290 295 300
 His Ser Val Ile Glu Ala His Glu Gln Leu Asn Val Lys His Glu Pro
 305 310 315 320
 Leu Gln Leu Ile Gln Pro Gln Phe Glu Thr Pro Leu Pro Thr Leu Gln
 325 330 335
 Pro Ala Val Phe Pro Pro Ser Phe Arg Glu Leu Pro Pro Pro Pro Leu

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<400> 4807
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120
agccccgcaa tctgcagacc tcagcggcag cgcagggtggc agacctgcct cctttgcctg
180
tgagtcatgg cagctcccat gaatggccaa gtgtgtgtgg tgactgggtgc ctccaggggt
240
attggccgtg gcattgcctt gcagctctgc aaagcaggcg ccacagttta catcactggc
300
cgccatctgg acacccttcg cgttgttgct caggaggcac aatccctcgg gggccaatgt
360
gtgcctgtgg tgtgcgattc aagccaggag agtgaagtgc gaagcctgtt tgagcaagtg
420
gatcggaac agcaagggcg tctagatgtg ctggtcaaca atgcttatgc aggggtccag
480
acgatcctga acaccaggaa taaggcattc tgggaaacc ctgcctccat gtgggatgat
540
atcaacaacg tcggactcag aggccactac ttttgctcag tgtatggggc acggctgatg
600
gtaccagctg gccaggggct catcgtggtc atctcctccc caggaagcct gcagtatatg
660
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780
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1020
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 1080
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 1177

<210> 4808
 <211> 313
 <212> PRT
 <213> Homo sapiens

<400> 4808
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 20 25 30
 Thr Val Tyr Ile Thr Gly Arg His Leu Asp Thr Leu Arg Val Val Ala
 35 40 45
 Gln Glu Ala Gln Ser Leu Gly Gly Gln Cys Val Pro Val Val Cys Asp
 50 55 60
 Ser Ser Gln Glu Ser Glu Val Arg Ser Leu Phe Glu Gln Val Asp Arg
 65 70 75 80
 Glu Gln Gln Gly Arg Leu Asp Val Leu Val Asn Asn Ala Tyr Ala Gly
 85 90 95
 Val Gln Thr Ile Leu Asn Thr Arg Asn Lys Ala Phe Trp Glu Thr Pro
 100 105 110
 Ala Ser Met Trp Asp Asp Ile Asn Asn Val Gly Leu Arg Gly His Tyr
 115 120 125
 Phe Cys Ser Val Tyr Gly Ala Arg Leu Met Val Pro Ala Gly Gln Gly
 130 135 140
 Leu Ile Val Val Ile Ser Ser Pro Gly Ser Leu Gln Tyr Met Phe Asn
 145 150 155 160
 Val Pro Tyr Gly Val Gly Lys Ala Ala Cys Asp Lys Leu Ala Ala Asp
 165 170 175
 Cys Ala His Glu Leu Arg Arg His Gly Val Ser Cys Val Ser Leu Trp
 180 185 190
 Pro Gly Ile Val Gln Thr Glu Leu Leu Lys Glu His Met Ala Lys Glu
 195 200 205
 Glu Val Leu Gln Asp Pro Val Leu Lys Gln Phe Lys Ser Ala Phe Ser
 210 215 220
 Ser Ala Glu Thr Thr Glu Leu Ser Gly Lys Cys Val Val Ala Leu Ala
 225 230 235 240
 Thr Asp Pro Asn Ile Leu Ser Leu Ser Gly Lys Val Leu Pro Ser Cys
 245 250 255
 Asp Leu Ala Arg Arg Tyr Gly Leu Arg Asp Val Asp Gly Arg Pro Val
 260 265 270
 Gln Asp Tyr Leu Ser Leu Ser Ser Val Leu Ser His Val Ser Gly Leu
 275 280 285
 Gly Trp Leu Ala Ser Tyr Leu Pro Ser Phe Leu Arg Val Pro Lys Trp
 290 295 300
 Ile Ile Ala Leu Tyr Thr Ser Lys Phe
 305 310

<210> 4809
 <211> 999
 <212> DNA
 <213> Homo sapiens

<400> 4809
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 120
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 180
 taacagcatc actgagcctg gggaacagac agtccttagt ccaagccctg gaggtaagaa
 240
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 300
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 360
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 420
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 480
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 660
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 720
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 780
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 900
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<210> 4810
 <211> 120
 <212> PRT
 <213> Homo sapiens

<400> 4810
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 20 25 30
 Ser Gln Pro Gly Cys His Ser Gly Leu Leu Thr Asn Thr Pro Ala Ala
 35 40 45
 Leu Val Pro Ala His Ala Arg Gln Arg Ser Gln Pro Ser Leu Leu Leu

50						55						60				
Ser	Ser	Ser	Pro	Arg	Lys	Ser	Arg	Ser	Trp	Gln	Gly	Ser	Gly	Pro	Met	
65					70					75					80	
Trp	Pro	Gly	Pro	Gly	Tyr	Phe	Pro	Asp	Leu	Thr	Ser	Pro	Thr	Ala	Gln	
				85					90					95		
Pro	Leu	Gln	Leu	Leu	Gly	Ala	Leu	His	Gly	Cys	Ser	Phe	Pro	Pro	Pro	
			100					105					110			
Leu	Pro	Ser	Gly	Gln	Pro	Cys	Pro									
		115					120									

<210> 4811

<211> 3207

<212> DNA

<213> Homo sapiens

<400> 4811

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240
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420
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480
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1140

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2280
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2340
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2580
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<210> 4812

<211> 306

<212> PRT

<213> Homo sapiens

<400> 4812

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Leu	Arg	Thr	Leu	Leu	Glu	Glu	Ala	Val	Pro	Leu	Ser	Cys	Ala	Leu	Pro
			20					25					30		
Lys	Val	Thr	Leu	Pro	Asn	Tyr	Asp	Asn	Val	Pro	Gly	Asn	Leu	Met	Leu
			35				40					45			
Ser	Ala	Leu	Gly	Leu	Arg	Leu	Gly	Asp	Arg	Val	Leu	Leu	Asp	Gly	Gln
			50				55				60				
Lys	Thr	Gly	Thr	Leu	Arg	Phe	Cys	Gly	Thr	Thr	Glu	Phe	Ala	Ser	Gly
65					70				75					80	
Ser	Trp	Val	Gly	Val	Glu	Leu	Asp	Glu	Pro	Glu	Gly	Lys	Asn	Asp	Gly
				85				90					95		
Ser	Val	Gly	Gly	Val	Arg	Tyr	Phe	Ile	Cys	Pro	Pro	Lys	Gln	Gly	Leu
			100					105					110		
Phe	Ala	Ser	Val	Ser	Lys	Ile	Ser	Lys	Ala	Val	Asp	Ala	Pro	Pro	Ser
			115				120					125			
Ser	Val	Thr	Ser	Thr	Pro	Gly	Pro	Pro	Arg	Met	Asp	Phe	Ser	Arg	Val
			130			135					140				
Thr	Gly	Lys	Gly	Arg	Arg	Glu	His	Lys	Gly	Lys	Lys	Lys	Thr	Pro	Ser
145					150				155					160	
Ser	Pro	Ser	Leu	Gly	Ser	Leu	Gln	Gln	Arg	Asp	Gly	Ala	Lys	Ala	Glu
				165				170					175		
Val	Gly	Asp	Gln	Val	Leu	Val	Ala	Gly	Gln	Lys	Gln	Gly	Ile	Val	Arg
			180					185					190		
Phe	Tyr	Gly	Lys	Thr	Asp	Phe	Ala	Pro	Gly	Tyr	Trp	Tyr	Gly	Ile	Glu
			195				200					205			
Leu	Asp	Gln	Pro	Thr	Gly	Lys	His	Asp	Gly	Ser	Val	Phe	Gly	Val	Arg
			210			215					220				
Tyr	Phe	Thr	Cys	Pro	Pro	Arg	His	Gly	Val	Phe	Ala	Pro	Ala	Ser	Arg
225					230				235					240	
Ile	Gln	Arg	Ile	Gly	Gly	Ser	Thr	Asp	Ser	Pro	Gly	Asp	Ser	Val	Gly

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<210> 4813
<211> 400
<212> DNA
<213> Homo sapiens
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<210> 4814
<211> 125
<212> PRT
<213> Homo sapiens
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3993

<210> 4815
 <211> 528
 <212> DNA
 <213> Homo sapiens

<400> 4815
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 180
 gacgtgaaaa ccagtcctcc acgaactgca ccaaagaaac agctaccttc tattcccaaa
 240
 aatgctttgc ccataactaa gcctacatca cctgccccag cagcacagtc aacaaatggc
 300
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 360
 gttgtgaagc agaagctacc aggcgtctat gtgcagccat cttatcgctc tgcattaatg
 420
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 480
 gtttacatcc ctgataacta tccagatggt gactgtccac gcttggtg
 528

<210> 4816
 <211> 105
 <212> PRT
 <213> Homo sapiens

<400> 4816
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 20 25 30
 Arg Thr Ala Pro Lys Lys Gln Leu Pro Ser Ile Pro Lys Asn Ala Leu
 35 40 45
 Pro Ile Thr Lys Pro Thr Ser Pro Ala Pro Ala Ala Gln Ser Thr Asn
 50 55 60
 Gly Thr His Ala Ser Tyr Gly Pro Phe Tyr Leu Glu Tyr Ser Leu Leu
 65 70 75 80
 Ala Glu Phe Thr Leu Val Val Lys Gln Lys Leu Pro Gly Val Tyr Val
 85 90 95
 Gln Pro Ser Tyr Arg Ser Ala Leu Met
 100 105

<210> 4817
 <211> 1106
 <212> DNA
 <213> Homo sapiens

<400> 4817
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 420
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 960
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<210> 4818

<211> 135

<212> PRT

<213> Homo sapiens

<400> 4818

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			20					25					30		
Ser	Gln	Ala	Gly	Leu	Asn	Gln	Lys	Leu	Asn	Phe	Ile	Val	Thr	Gly	Leu
			35				40					45			
Gln	Asp	Ile	Asp	Lys	Cys	Arg	Gln	Gln	Leu	His	Asp	Ile	Thr	Val	Pro
			50			55					60				
Leu	Glu	Val	Phe	Glu	Tyr	Ile	Asp	Gln	Gly	Arg	Asn	Pro	Gln	Leu	Tyr
65					70				75					80	
Thr	Lys	Glu	Cys	Leu	Glu	Arg	Ala	Leu	Ala	Lys	Asn	Glu	Gln	Val	Lys

							85						90					95	
Gly	Lys	Ile	Asp	Thr	Met	Lys	Lys	Phe	Lys	Ser	Leu	Leu	Ile	Gln	Glu				
							100						105					110	
Leu	Ser	Lys	Val	Phe	Pro	Glu	Asp	Met	Ala	Lys	Tyr	Arg	Ser	Ile	Arg				
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<210> 4819

<211> 1655

<212> DNA

<213> Homo sapiens

<400> 4819

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180					
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240					
gatgtggagc	ctgagtcttg	gagagaagcc	ttcaagcagc	attaccttgc	atccaagaca
300					
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360					
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420					
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480					
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540					
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600					
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660					
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720					
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780					
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840					
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900					
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1020					
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1080					
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1140					
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1200					

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 1320
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 1440
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 1655

<210> 4820

<211> 551

<212> PRT

<213> Homo sapiens

<400> 4820

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Met	Glu	Ala	Gly	Gly	Leu	Pro	Leu	Glu	Leu	Trp	Arg	Met	Ile	Leu	Ala
			20					25					30		
Tyr	Leu	His	Leu	Pro	Asp	Leu	Gly	Arg	Cys	Ser	Leu	Val	Cys	Arg	Ala
		35					40					45			
Trp	Tyr	Glu	Leu	Ile	Leu	Ser	Leu	Asp	Ser	Thr	Arg	Trp	Arg	Gln	Leu
	50					55					60				
Cys	Leu	Gly	Cys	Thr	Glu	Cys	Arg	His	Pro	Asn	Trp	Pro	Asn	Gln	Pro
65					70					75				80	
Asp	Val	Glu	Pro	Glu	Ser	Trp	Arg	Glu	Ala	Phe	Lys	Gln	His	Tyr	Leu
				85					90					95	
Ala	Ser	Lys	Thr	Trp	Thr	Lys	Asn	Ala	Leu	Asp	Leu	Glu	Ser	Ser	Ile
			100					105					110		
Cys	Phe	Ser	Leu	Phe	Arg	Arg	Arg	Arg	Glu	Arg	Arg	Thr	Leu	Ser	Val
		115				120						125			
Gly	Pro	Gly	Arg	Glu	Phe	Asp	Ser	Leu	Gly	Ser	Ala	Leu	Ala	Met	Ala
	130					135					140				
Ser	Leu	Tyr	Asp	Arg	Ile	Val	Leu	Phe	Pro	Gly	Val	Tyr	Glu	Glu	Gln
145					150					155				160	
Gly	Glu	Ile	Ile	Leu	Lys	Val	Pro	Val	Glu	Ile	Val	Gly	Gln	Gly	Lys
				165					170					175	
Leu	Gly	Glu	Val	Ala	Leu	Leu	Ala	Ser	Ile	Asp	Gln	His	Cys	Ser	Thr
			180					185					190		
Thr	Arg	Leu	Cys	Asn	Leu	Val	Phe	Thr	Pro	Ala	Trp	Phe	Ser	Pro	Ile
		195					200						205		
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	210					215					220				
Glu	Asn	Gly	His	Ile	Gln	Val	His	Gly	Pro	Gly	Thr	Cys	Gln	Val	Lys
225					230					235				240	
Phe	Cys	Thr	Phe	Lys	Asn	Thr	His	Ile	Phe	Leu	His	Asn	Val	Pro	Leu

															245								250								255		
Cys	Val	Leu	Glu	Asn	Cys	Glu	Phe	Val	Gly	Ser	Glu	Asn	Asn	Ser	Val																		
				260							265							270															
Thr	Val	Glu	Gly	His	Pro	Ser	Ala	Asp	Lys	Asn	Trp	Ala	Tyr	Lys	Tyr																		
				275							280							285															
Leu	Leu	Gly	Leu	Ile	Lys	Ser	Ser	Pro	Thr	Phe	Leu	Pro	Thr	Glu	Asp																		
				290							295							300															
Ser	Asp	Phe	Leu	Met	Ser	Leu	Asp	Leu	Glu	Ser	Arg	Asp	Gln	Ala	Trp																		
305					310							315							320														
Ser	Pro	Lys	Thr	Cys	Asp	Ile	Val	Ile	Glu	Gly	Ser	Gln	Ser	Pro	Thr																		
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				355							360							365															
Ser	Ser	Asp	Gly	Gly	Leu	Ser	Pro	Ser	Gly	Glu	Asp	Glu	Asp	Glu	Asp																		
				370							375							380															
Gln	Leu	Met	Tyr	Arg	Leu	Ser	Tyr	Gln	Val	Gln	Gly	Pro	Arg	Pro	Val																		
385					390							395							400														
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				405							410							415															
Leu	Pro	Ser	Cys	Leu	Val	Leu	Asn	Ser	Leu	Gln	Gln	Glu	Leu	Gln	Lys																		
				420							425							430															
Asp	Lys	Glu	Ala	Met	Ala	Leu	Ala	Asn	Ser	Val	Gln	Gly	Cys	Leu	Ile																		
				435							440							445															
Arg	Lys	Cys	Leu	Phe	Arg	Asp	Gly	Lys	Gly	Gly	Val	Phe	Val	Cys	Ser																		
				450							455							460															
His	Gly	Arg	Ala	Lys	Met	Glu	Gly	Asn	Ile	Phe	Arg	Asn	Leu	Thr	Tyr																		
465					470							475							480														
Ala	Val	Arg	Cys	Ile	His	Asn	Ser	Lys	Ile	Ile	Met	Leu	Arg	Asn	Asp																		
				485							490							495															
Ile	Tyr	Arg	Cys	Arg	Ala	Ser	Gly	Ile	Phe	Leu	Arg	Leu	Glu	Gly	Gly																		
				500							505							510															
Gly	Leu	Ile	Ala	Gly	Asn	Asn	Ile	Tyr	His	Asn	Ala	Glu	Ala	Gly	Val																		
				515							520							525															
Asp	Ile	Arg	Lys	Lys	Ser	Asn	Pro	Leu	Gln	Ile	Gly	Asn	Pro	Arg	Ala																		
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<210> 4821
<211> 585
<212> DNA
<213> Homo sapiens
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120
agagaactgg gggagctgct gggcgaagca cgctactacc tggatgcaggg cctgattgag
180
gactgccagc tggcgctgca gcaaaaaagg gagacgctgt ccccgctgtg cctcatcccc
240
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atggtgacat ctccccggga ggagcagcag ctcttgcca gcacctcaa gcccggtggtg
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 aagctcctgc acaaccgcag taacaacaag tactcctaca ccagcacttc agatgacaac
 360
 ctacttaaga acatcgagct gttcgacaag ctggccctgc gcttccacgg gcggctactc
 420
 ttcctcaagg atgtcctggg ggacgagatc tgctgctggt ctttctacgg gcagggccgc
 480
 aaaatcgccg aggtgtgctg cacctccatt gtctatgcta cggagaagaa gcagaccaag
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<210> 4822

<211> 195

<212> PRT

<213> Homo sapiens

<400> 4822

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Arg	Ser	Gly	Arg	His	Phe	Gly	Thr	Ile	Leu	Asn	Tyr	Leu	Arg	Asp	Gly	20	25	30	
Ser	Val	Pro	Leu	Pro	Glu	Ser	Thr	Arg	Glu	Leu	Gly	Glu	Leu	Leu	Gly	35	40	45	
Glu	Ala	Arg	Tyr	Tyr	Leu	Val	Gln	Gly	Leu	Ile	Glu	Asp	Cys	Gln	Leu	50	55	60	
Ala	Leu	Gln	Gln	Lys	Arg	Glu	Thr	Leu	Ser	Pro	Leu	Cys	Leu	Ile	Pro	65	70	75	80
Met	Val	Thr	Ser	Pro	Arg	Glu	Glu	Gln	Gln	Leu	Leu	Ala	Ser	Thr	Ser	85	90	95	
Lys	Pro	Val	Val	Lys	Leu	Leu	His	Asn	Arg	Ser	Asn	Asn	Lys	Tyr	Ser	100	105	110	
Tyr	Thr	Ser	Thr	Ser	Asp	Asp	Asn	Leu	Leu	Lys	Asn	Ile	Glu	Leu	Phe	115	120	125	
Asp	Lys	Leu	Ala	Leu	Arg	Phe	His	Gly	Arg	Leu	Leu	Phe	Leu	Lys	Asp	130	135	140	
Val	Leu	Gly	Asp	Glu	Ile	Cys	Cys	Trp	Ser	Phe	Tyr	Gly	Gln	Gly	Arg	145	150	155	160
Lys	Ile	Ala	Glu	Val	Cys	Cys	Thr	Ser	Ile	Val	Tyr	Ala	Thr	Glu	Lys	165	170	175	
Lys	Gln	Thr	Lys	Val	Arg	Gly	Ala	Pro	Glu	Pro	Met	Leu	Gly	Ala	Gly	180	185	190	
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<210> 4823

<211> 1984

<212> DNA

<213> Homo sapiens

<400> 4823

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180
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240
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300
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cagcgaacag gaggatcatt tccaggagga cacgtccctg atatgggatc agggttgatg
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1140
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1560
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1620
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<210> 4824

<211> 547

<212> PRT

<213> Homo sapiens

<400> 4824

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			20					25					30		
Asp	Lys	Asn	Ser	Gly	Thr	Gly	Glu	Lys	Lys	Gly	Pro	Asn	Arg	Asn	Arg
		35					40					45			
Val	Phe	Ile	Ser	Asn	Ile	Pro	Tyr	Asp	Met	Lys	Trp	Gln	Ala	Ile	Lys
	50					55					60				
Asp	Leu	Met	Arg	Glu	Lys	Val	Gly	Glu	Val	Thr	Tyr	Val	Glu	Leu	Phe
65					70					75				80	
Lys	Asp	Ala	Glu	Gly	Lys	Ser	Arg	Gly	Cys	Gly	Val	Val	Glu	Phe	Lys
				85					90					95	
Asp	Glu	Glu	Phe	Val	Lys	Lys	Ala	Leu	Glu	Thr	Met	Asn	Lys	Tyr	Asp
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Leu	Ser	Gly	Arg	Pro	Leu	Asn	Ile	Lys	Glu	Asp	Pro	Asp	Gly	Glu	Asn
		115					120						125		
Ala	Arg	Arg	Ala	Leu	Gln	Arg	Thr	Gly	Gly	Ser	Phe	Pro	Gly	Gly	His
		130				135					140				
Val	Pro	Asp	Met	Gly	Ser	Gly	Leu	Met	Asn	Leu	Pro	Pro	Ser	Ile	Leu
145					150					155					160
Asn	Asn	Pro	Asn	Ile	Pro	Pro	Glu	Val	Ile	Ser	Asn	Leu	Gln	Ala	Gly
			165						170					175	
Arg	Leu	Gly	Ser	Thr	Ile	Phe	Val	Ala	Asn	Leu	Asp	Phe	Lys	Val	Gly
			180					185					190		
Trp	Lys	Lys	Leu	Lys	Glu	Val	Phe	Ser	Ile	Ala	Gly	Thr	Val	Lys	Arg
		195					200					205			
Ala	Asp	Ile	Lys	Glu	Asp	Lys	Asp	Gly	Lys	Ser	Arg	Gly	Met	Gly	Thr
	210					215					220				
Val	Thr	Phe	Glu	Gln	Ala	Ile	Glu	Ala	Val	Gln	Ala	Ile	Ser	Met	Phe
225					230					235					240
Asn	Gly	Gln	Phe	Leu	Phe	Asp	Arg	Pro	Met	His	Val	Lys	Met	Asp	Asp
			245						250					255	
Lys	Ser	Val	Pro	His	Glu	Glu	Tyr	Arg	Ser	Pro	Asp	Gly	Lys	Thr	Pro
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Gln	Leu	Pro	Arg	Gly	Leu	Gly	Gly	Ile	Gly	Met	Gly	Leu	Gly	Pro	Gly

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<211> 2380
<212> DNA
<213> Homo sapiens
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120
ccggccctcg gggcbkcagc tgggcgcccg gccggccgct gtctgcagcc ctttggagcg
180
cgtkctgggc tcgcccgkc gctccccggc cggccccctc gcgccctcgg cggccagcct
240
ctcgtcgtcc tcacctcca cctccaccac ctattcctcg tcggcccgtt tcatgcccg
300
caccatctgg tcgttctcgc acgnccgcgg gctcggggccg ggactggagc ccactctggt
360
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420
cacgcccag atccgcgctc tctacaacgt gctggccaaa gtgaagcggg agcgggacga
480
gtacaagcgg aggtgggaag aggagtacac ggtgcggatc cagctgcaag accgtgtaaa
540
tgagctccag gaggaagccc aggaggctga tgccctgccag gaggagctgg cactgaaggt
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720
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780
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<212> PRT

<213> Homo sapiens

<400> 4826

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<212> PRT

<213> Homo sapiens

<400> 4828

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Gln	Thr	Gly	Leu	Thr	Val	Thr	Ser	Leu	Pro	Ala	Thr	Ala	Ser	Pro	Val	
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Ser	Lys	Pro	Ala	Thr	Ser	Ser	Pro	Gly	Thr	Ser	Ala	Pro	Ser	Ala	Ser	
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 Arg Leu Pro Pro Ser Ser Ile Thr Thr Asp Ala Lys Gly Gln Thr Val
 980 985 990
 Leu Arg Ile Thr Pro Asp Met Met Ala Thr Leu Ala Lys Ser Gln Val
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 Gln Val Arg Ile Gln Thr Val Pro Ala Ser Xaa Leu Gln Gln Gly Thr
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<210> 4829

<211> 1605

<212> DNA

<213> Homo sapiens

<400> 4829

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<210> 4830
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 <212> PRT
 <213> Homo sapiens

<400> 4830

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Asn Asn Leu Lys Lys Arg Phe Asp His Ser Glu Ile Tyr Thr Tyr Ile
      35           40           45
Gly Ser Val Val Ile Ser Val Asn Pro Tyr Arg Ser Leu Pro Ile Tyr
      50           55           60
Ser Pro Glu Lys Val Glu Glu Tyr Arg Asn Arg Asn Phe Tyr Glu Leu
65           70           75           80
Ser Pro His Ile Phe Ala Leu Ser Asp Glu Ala Tyr Arg Ser Leu Arg
      85           90           95
Asp Gln Asp Lys Asp Gln Cys Ile Leu Ile Thr Gly Glu Ser Gly Ala
      100          105          110
Gly Lys Thr Glu Ala Ser Lys Leu Val Met Ser Tyr Val Ala Ala Val
      115          120          125
Cys Gly Lys Gly Ala Glu Val Asn Gln Val Lys Glu Gln Leu Leu Gln
      130          135          140
Ser Asn Pro Val Leu Glu Ala Phe Gly Asn Ala Lys Thr Val Arg Asn
145          150          155          160
Asp Asn Ser Ser Arg Phe Gly Lys Tyr Met Asp Ile Glu Phe Asp Phe
      165          170          175
Lys Gly Asp Pro Leu Gly Gly Val Ile Ser Asn Tyr Leu Leu Glu Lys
      180          185          190
Ser Arg Val Val Lys Gln Pro Arg Gly Glu Arg Asn Phe His Val Phe
      195          200          205
Tyr Gln Leu Leu Ser Gly Ala Ser Glu Glu Leu Leu Asn Lys Leu Lys
      210          215          220
Leu Glu Arg Asp Phe Ser Arg Tyr Asn Tyr Leu Ser Leu Asp Ser Ala
225          230          235          240
Lys Val Asn Gly Val Asp Asp Ala Ala Asn Phe Arg Thr Val Arg Asn
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      260          265          270
Ala Val Val Ala Ala Val Leu Lys Leu Gly Asn Ile Glu Phe Lys Pro
      275          280          285
Glu Ser Arg Val Asn Gly Leu Asp Glu Ser Lys Ile Lys Asp Lys Asn
      290          295          300
Glu Leu Lys Glu Ile Cys Glu Leu Thr Gly Ile Asp Gln Ser Val Leu
305          310          315          320
Glu Arg Ala Phe Ser Phe Arg Thr Val Glu Ala Lys Gln Glu Lys Val
      325          330          335
Ser Thr Thr Leu Asn Val Ala Gln Ala Tyr Tyr Ala Arg Asp Ala Leu
      340          345          350
Ala Lys Asn Leu Tyr Ser Arg Leu Phe Ser Trp Leu Val Asn Arg Ile
      355          360          365
Asn Glu Ser Ile Lys Ala Gln Thr Lys Val Arg Lys Lys Val Met Gly

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	405	410
Glu Leu Thr Leu Lys Glu Glu Gln Glu Glu Tyr Ile Arg Glu Asp Ile		415
	420	425
Glu Trp Thr His Ile Asp Tyr Phe Asn Asn Ala Ile Ile Cys Asp Leu		430
	435	440
Ile Glu Asn Asn Thr Asn Gly Ile Leu Ala Met Leu Asp Glu Glu Cys		445
	450	455
Leu Arg Pro Gly Thr Val Thr Asp Glu Thr Phe Leu Glu Lys Leu Asn		460
465	470	475
Gln Val Cys Ala Thr His Gln His Phe Glu Ser Arg Met Ser Lys Cys		480
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 <211> 578
 <212> DNA
 <213> Homo sapiens

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<212> PRT
<213> Homo sapiens
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<400> 4834

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 35 40 45
 Ile Asp Cys Leu Met Lys Thr Ala Arg Ala Glu Gly Phe Phe Gly Met
 50 55 60
 Tyr Arg Gly Ala Ala Val Asn Leu Thr Leu Val Thr Pro Glu Lys Ala
 65 70 75 80
 Ile Lys Leu Ala Ala Asn Asp Phe Phe Arg Arg Leu Leu Met Glu Asp
 85 90 95
 Gly Met Gln Arg Asn Leu Lys Met Glu Met Leu Ala Gly Cys Gly Ala
 100 105 110
 Gly Met Cys Gln Val Val Val Thr Cys Pro Met Glu Met Leu Lys Ile
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<210> 4835

<211> 1846

<212> DNA

<213> Homo sapiens

<400> 4835

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<210> 4836

<211> 349

<212> PRT

<213> Homo sapiens

<400> 4836

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			20					25					30		
Thr	Tyr	Gln	Glu	Ile	Gln	Glu	Leu	Gln	Trp	Glu	Ile	Gln	Asn	Thr	Ser
			35				40					45			
His	Leu	Ala	Val	Asp	Gly	Asp	Arg	Ala	Ala	Ala	Trp	Pro	Val	Gly	Ile
	50					55					60				
Pro	Ala	Pro	Ser	Arg	Pro	Ala	Ser	Arg	Phe	Glu	Val	Leu	Arg	Trp	Asp
65				70					75					80	
Tyr	Phe	Thr	Glu	Gln	His	Ala	Phe	Ser	Cys	Ala	Asp	Gly	Ser	Pro	Arg

				85					90					95		
Cys	Pro	Leu	Arg	Gly	Ala	Asp	Arg	Ala	Asp	Val	Ala	Asp	Val	Leu	Gly	
			100					105					110			
Thr	Ala	Leu	Glu	Glu	Leu	Asn	Arg	Arg	Tyr	His	Pro	Ala	Leu	Arg	Leu	
		115					120					125				
Gln	Lys	Gln	Gln	Leu	Val	Asn	Gly	Tyr	Arg	Arg	Phe	Asp	Pro	Ala	Arg	
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Gly	Gly	Arg	Arg	Pro	Leu	Thr	Arg	Arg	Val	Gln	Leu	Leu	Arg	Pro	Leu	
				165					170					175		
Ser	Arg	Val	Glu	Ile	Leu	Pro	Val	Pro	Tyr	Val	Thr	Glu	Ala	Ser	Arg	
			180					185					190			
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Arg	Val	Ala	His	Ala	Asp	Val	Phe	Ala	Pro	Val	Lys	Ala	His	Val	Ala	
				245					250					255		
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			260					265					270			
Gln	Thr	Ala	Ala	Pro	Ser	Pro	Leu	Arg	Leu	Met	Asp	Leu	Leu	Ser	Lys	
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Lys	His	Pro	Leu	Asp	Thr	Leu	Phe	Leu	Leu	Ala	Gly	Pro	Asp	Thr	Val	
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Leu	Thr	Pro	Asp	Phe	Leu	Asn	Arg	Cys	Arg	Met	His	Ala	Ile	Ser	Gly	
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Trp	Gln	Ala	Phe	Phe	Pro	Met	His	Phe	Gln	Ala	Phe	His	Pro	Ala	Val	
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<210> 4837

<211> 906

<212> DNA

<213> Homo sapiens

<400> 4837

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<210> 4838

<211> 302

<212> PRT

<213> Homo sapiens

<400> 4838

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			20					25					30		
Glu	Thr	Ala	Lys	Gly	Ile	Asn	Gly	Thr	Val	Asn	Tyr	Asp	Ser	Val	Asn
		35					40					45			
Ser	Asp	Asn	Ser	Lys	Pro	Lys	Ile	Phe	Lys	Ser	Gln	Ile	Glu	Asn	Ile
	50					55					60				
Asn	Leu	Thr	Asn	Gly	Ser	Asn	Gly	Arg	Asn	Thr	Glu	Ser	Pro	Ala	Ala
65					70				75					80	
Ile	His	Pro	Cys	Gly	Asn	Pro	Thr	Val	Ile	Glu	Asp	Ala	Leu	Asp	Lys
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Ile	Lys	Ser	Asn	Asp	Pro	Asp	Thr	Thr	Glu	Val	Asn	Leu	Asn	Asn	Ile
			100					105					110		
Glu	Asn	Ile	Thr	Thr	Gln	Thr	Leu	Thr	Arg	Phe	Ala	Glu	Ala	Leu	Lys
			115				120					125			
Asp	Asn	Thr	Val	Val	Lys	Thr	Phe	Ser	Leu	Ala	Asn	Thr	His	Ala	Asp
			130			135					140				
Asp	Ser	Ala	Ala	Met	Ala	Ile	Ala	Glu	Met	Leu	Lys	Val	Asn	Glu	His
145				150				155						160	
Ile	Thr	Asn	Val	Asn	Val	Glu	Ser	Asn	Phe	Ile	Thr	Gly	Lys	Gly	Ile
				165				170						175	
Leu	Ala	Ile	Met	Arg	Ala	Leu	Gln	His	Asn	Thr	Val	Leu	Thr	Glu	Leu
			180					185					190		
Arg	Phe	His	Asn	Gln	Arg	His	Ile	Met	Gly	Ser	Gln	Val	Glu	Met	Glu
		195				200						205			
Ile	Val	Lys	Leu	Leu	Lys	Glu	Asn	Thr	Thr	Leu	Leu	Arg	Leu	Gly	Tyr
		210				215					220				
His	Phe	Glu	Leu	Pro	Gly	Pro	Arg	Met	Ser	Met	Thr	Ser	Ile	Leu	Thr

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Arg	Asn	Met	Asp	Lys	Gln	Arg	Gln	Lys	Arg	Leu	Gln	Glu	Gln	Lys	Gln
				245					250					255	
Gln	Glu	Gly	Tyr	Asp	Gly	Gly	Pro	Asn	Leu	Arg	Thr	Lys	Val	Trp	Gln
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Arg	Gly	Thr	Pro	Ser	Pro	Ser	Pro	Tyr	Val	Ser	Pro	Arg	His	Ser	Pro
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<211> 1313

<212> DNA

<213> Homo sapiens

<400> 4839

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4027

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Glu Ala Cys Val Pro Ser Lys Ile Val Thr Gln Pro Gln Arg His Asn		
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Leu Gln Pro Phe His Pro Lys Leu Gly Asp Val Thr Asp Ala Asp Ser		
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<210> 4845

<211> 3286

<212> DNA

<213> Homo sapiens

<400> 4845

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<211> 626

<212> PRT

<213> Homo sapiens

<400> 4846

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			20					25					30		
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Phe	Glu	His	Asn	Gly	Glu	Arg	Arg	Ile	Ile	Ala	Phe	Ser	Arg	Pro	Val
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Lys	Tyr	Glu	Asp	Val	Glu	His	Lys	Val	Thr	Thr	Val	Phe	Gly	Gln	Pro
65					70				75					80	
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4033

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	565	570
Phe Lys Ile Ala Thr Gln Pro Thr Asn Pro Gln Leu Pro Ser His Ile		575
	580	585
Ser Glu His Gly Arg Asp Phe Leu Arg Arg Ile Phe Val Glu Ala Arg		590
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<210> 4847

<211> 2804

<212> DNA

<213> Homo sapiens

<400> 4847

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<211> 242

<212> PRT

<213> Homo sapiens

<400> 4848

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Leu	Asn	Ser	Glu	Asn	Lys	Val	Asp	Leu	Thr	Asn	Pro	Gln	Tyr	Thr	Val
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Lys	Asn	Asn	Gln	Gln	Val	Pro	Glu	Asn	Thr	Glu	Glu	Leu	Gly	Gln	Thr
		195					200					205			
Lys	Pro	Thr	Ser	Asn	Pro	Gln	Val	Val	Asn	Glu	Gly	Gly	Ala	Lys	Pro
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<210> 4849

<211> 321

<212> DNA

<213> Homo sapiens

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<211> 90

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<213> Homo sapiens

<400> 4850

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			20					25					30		
Gln	Glu	Arg	Gly	Ser	Ala	His	Leu	Val	Ala	Leu	Lys	Cys	Ile	Pro	Lys
			35				40					45			
Lys	Ala	Leu	Arg	Gly	Lys	Glu	Ala	Leu	Val	Glu	Asn	Glu	Ile	Ala	Val
			50			55				60					
Leu	Arg	Arg	Ile	Ser	His	Pro	Asn	Ile	Val	Ala	Leu	Glu	Asp	Val	His
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Glu	Ser	Pro	Ser	His	Leu	Tyr	Leu	Ala	Met						
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<210> 4851

<211> 820

<212> DNA

<213> Homo sapiens

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<211> 207

<212> PRT

<213> Homo sapiens

<400> 4852

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			20					25					30		
Ser	Ala	Ala	Leu	His	Arg	Arg	Val	Ala	Ala	Met	Arg	Glu	Ala	Gly	Thr
			35				40					45			
Ala	Leu	Pro	Asp	Gln	Tyr	Gln	Glu	Asp	Ala	Ser	Asp	Met	Lys	Asp	Met
		50				55					60				
Ser	Lys	Tyr	Lys	Pro	His	Ile	Leu	Leu	Ser	Gln	Glu	Asn	Thr	Gln	Ile
65					70					75				80	
Arg	Asp	Leu	Gln	Gln	Glu	Asn	Arg	Glu	Leu	Trp	Ile	Ser	Leu	Glu	Glu
			85					90						95	
His	Gln	Asp	Ala	Leu	Glu	Leu	Ile	Met	Ser	Lys	Tyr	Arg	Lys	Gln	Met
			100					105					110		
Leu	Gln	Leu	Met	Val	Ala	Lys	Lys	Ala	Val	Asp	Ala	Glu	Pro	Val	Leu
			115				120					125			
Lys	Ala	His	Gln	Ser	His	Ser	Ala	Glu	Ile	Glu	Ser	Gln	Ile	Asp	Arg
			130				135					140			
Ile	Cys	Glu	Met	Gly	Glu	Val	Met	Arg	Lys	Ala	Val	Gln	Val	Asp	Asp
145					150					155				160	
Asp	Gln	Phe	Cys	Lys	Ile	Gln	Glu	Lys	Leu	Ala	Gln	Leu	Glu	Leu	Glu
			165					170						175	
Asn	Lys	Glu	Leu	Arg	Glu	Leu	Leu	Ser	Ile	Ser	Ser	Glu	Ser	Leu	Gln
			180					185					190		
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<210> 4853

<211> 1467

<212> DNA

<213> Homo sapiens

<400> 4853

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1467

<210> 4854

<211> 311

<212> PRT

<213> Homo sapiens

<400> 4854

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			20					25					30			
Glu	Asn	Pro	Glu	Gln	Val	Ala	Ser	Glu	Gly	Leu	Pro	Glu	Pro	Val	Leu	
		35					40					45				
Arg	Lys	Val	Glu	Leu	Pro	Val	Pro	Thr	His	Arg	Arg	Pro	Val	Gln	Ala	
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Trp	Val	Glu	Ser	Leu	Arg	Gly	Phe	Glu	Gln	Glu	Arg	Val	Gly	Leu	Ala	
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Asp	Leu	His	Pro	Asp	Val	Phe	Ala	Thr	Ala	Pro	Arg	Leu	Asp	Ile	Leu	
				85					90					95		
His	Gln	Val	Ala	Met	Trp	Gln	Lys	Asn	Phe	Lys	Arg	Ile	Ser	Tyr	Ala	
			100					105					110			
Lys	Thr	Lys	Thr	Arg	Ala	Glu	Val	Arg	Gly	Gly	Gly	Arg	Lys	Pro	Xaa	
		115					120					125				
Ala	Ala	Glu	Arg	His	Trp	Ala	Gly	Pro	Ala	Trp	Gln	His	Pro	Leu	Ser	
		130				135					140					
Ala	Leu	Ala	Arg	Arg	Arg	Cys	Cys	Pro	Trp	Pro	Pro	Gly	Pro	Thr	Ser	
145					150				155					160		
Tyr	Tyr	Tyr	Met	Leu	Pro	Met	Lys	Val	Arg	Ala	Leu	Gly	Leu	Lys	Val	
			165						170					175		
Ala	Leu	Thr	Val	Lys	Leu	Ala	Gln	Asp	Asp	Leu	His	Ile	Met	Asp	Ser	
			180					185					190			
Leu	Glu	Leu	Pro	Thr	Gly	Asp	Pro	Gln	Tyr	Leu	Thr	Glu	Leu	Ala	His	
		195					200					205				
Tyr	Arg	Arg	Trp	Gly	Asp	Ser	Val	Leu	Leu	Val	Asp	Leu	Thr	His	Glu	
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Glu	Met	Pro	Gln	Ser	Ile	Val	Glu	Ala	Thr	Ser	Arg	Leu	Lys	Thr	Phe	
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Asn	Leu	Ile	Pro	Ala	Val	Gly	Leu	Asn	Val	His	Ser	Met	Leu	Lys	His	
			245					250						255		
Gln	Thr	Leu	Val	Leu	Thr	Leu	Pro	Thr	Val	Ala	Phe	Leu	Glu	Asp	Lys	
		260						265					270			
Leu	Leu	Trp	Gln	Asp	Ser	Arg	Tyr	Arg	Pro	Leu	Tyr	Pro	Phe	Ser	Leu	
		275				280						285				
Pro	Tyr	Ser	Asp	Phe	Pro	Arg	Pro	Leu	Pro	His	Ala	Thr	Gln	Gly	Pro	
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<210> 4855

<211> 750

<212> DNA

<213> Homo sapiens

<400> 4855

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120

tttgggacaa catctacaac tgcaggttct gcattcagct tttctgcccc aactaacaca
180

ggcactactg gactcttttg tggctactcag aacaaagggt ttggatttgg tactggtttt
240

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 300
 ggaggattta atacacagca gcagcagcag caaactacat taggtggtct cttcagtcag
 360
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 420
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 480
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 540
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<210> 4856

<211> 237

<212> PRT

<213> Homo sapiens

<400> 4856

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Thr	Thr	Ala	Gly	Ser	Ala	Phe	Ser	Phe	Ser	Ala	Pro	Thr	Asn	Thr	Gly	35	40	45	
Thr	Thr	Gly	Leu	Phe	Gly	Gly	Thr	Gln	Asn	Lys	Gly	Phe	Gly	Phe	Gly	50	55	60	
Thr	Gly	Phe	Gly	Thr	Thr	Thr	Gly	Thr	Ser	Thr	Gly	Leu	Gly	Thr	Gly	65	70	75	80
Leu	Gly	Thr	Gly	Leu	Gly	Phe	Gly	Gly	Phe	Asn	Thr	Gln	Gln	Gln	Gln	85	90	95	
Gln	Gln	Thr	Thr	Leu	Gly	Gly	Leu	Phe	Ser	Gln	Pro	Thr	Gln	Ala	Pro	100	105	110	
Thr	Gln	Ser	Asn	Gln	Leu	Ile	Asn	Thr	Ala	Ser	Ala	Leu	Ser	Ala	Pro	115	120	125	
Thr	Leu	Leu	Gly	Asp	Glu	Arg	Asp	Ala	Ile	Leu	Ala	Lys	Trp	Asn	Gln	130	135	140	
Leu	Gln	Ala	Phe	Trp	Gly	Thr	Gly	Lys	Gly	Tyr	Phe	Asn	Asn	Asn	Ile	145	150	155	160
Pro	Pro	Val	Glu	Phe	Thr	Gln	Glu	Asn	Pro	Phe	Cys	Arg	Phe	Lys	Ala	165	170	175	
Val	Gly	Tyr	Ser	Cys	Met	Pro	Ser	Asn	Lys	Asp	Glu	Asp	Gly	Leu	Val	180	185	190	
Val	Leu	Val	Phe	Asn	Lys	Lys	Glu	Thr	Glu	Ile	Arg	Ser	Gln	Gln	Gln	195	200	205	
Gln	Leu	Val	Glu	Ser	Leu	His	Lys	Val	Leu	Gly	Gly	Asn	Gln	Thr	Leu	210	215	220	
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<210> 4857

<211> 2887

<212> DNA

<213> Homo sapiens

<400> 4857

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<210> 4858

<211> 269

<212> PRT

<213> Homo sapiens

<400> 4858

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Ile Leu Leu Leu Gln Leu Asp Leu Ile Glu Gln Gln Gln Gln Gln Leu
      35           40           45
Gln Ala Lys Glu Lys Glu Ile Glu Glu Leu Lys Ser Glu Arg Asp Thr
      50           55           60
Leu Leu Ala Arg Ile Glu Arg Met Glu Arg Arg Met Gln Leu Val Lys
65           70           75           80
Lys Asp Asn Glu Lys Glu Arg His Lys Leu Phe Gln Gly Tyr Glu Thr
      85           90           95
Glu Glu Arg Glu Glu Thr Glu Leu Ser Glu Lys Ile Lys Leu Glu Cys
      100          105          110
Gln Pro Glu Leu Ser Glu Thr Ser Gln Thr Leu Pro Pro Lys Pro Phe
      115          120          125
Ser Cys Gly Arg Ser Gly Lys Gly His Lys Arg Lys Ser Pro Phe Gly
      130          135          140
Ser Thr Glu Arg Lys Thr Pro Val Lys Lys Leu Ala Pro Glu Phe Ser
145          150          155          160
Lys Val Lys Thr Lys Thr Pro Lys His Ser Pro Ile Lys Glu Glu Pro
      165          170          175
Cys Gly Ser Leu Ser Glu Thr Val Cys Lys Arg Glu Leu Arg Ser Gln
      180          185          190
Glu Thr Pro Glu Lys Pro Arg Ser Ser Val Asp Thr Pro Pro Arg Leu
      195          200          205
Ser Thr Pro Gln Lys Gly Pro Ser Thr His Pro Lys Glu Lys Ala Phe
      210          215          220
Ser Ser Glu Ile Glu Asp Leu Pro Tyr Leu Ser Thr Thr Glu Met Tyr
225          230          235          240
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<210> 4859

<211> 689

<212> DNA

<213> Homo sapiens

<400> 4859

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240

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<210> 4860

<211> 173

<212> PRT

<213> Homo sapiens

<400> 4860

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Trp	Thr	Leu	Asp	Leu	Glu	Pro	Arg	Gly	Pro	Val	His	Ile	His	Pro	Thr
			20					25					30		
Arg	Val	Ser	Gly	Gly	Leu	Pro	Arg	Cys	Leu	Cys	Trp	Val	Ala	Val	Val
		35					40					45			
Val	Pro	Arg	Gly	Met	Glu	Cys	Pro	Gly	Leu	Leu	Gln	Glu	Leu	Ser	Thr
	50					55					60				
Gln	Gly	Gln	Gly	Glu	Pro	Arg	Glu	Lys	Arg	Pro	Gly	Leu	Leu	Ser	Phe
65					70				75					80	
Leu	Ile	Cys	Ser	Cys	Pro	Pro	Leu	Ser	Ser	Thr	Pro	Leu	Pro	Phe	Pro
				85					90					95	
Arg	Leu	Ser	Pro	Pro	Trp	Ala	Phe	Val	Cys	Phe	Gly	Arg	Cys	His	Leu
			100					105					110		
Thr	Arg	Thr	Leu	Ile	Phe	Asn	Pro	Ile	Pro	Leu	Pro	Pro	Thr	Leu	Pro
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His	Phe	Asp	Leu	Ile	Leu	Trp	Leu	Trp	Ala	Glu	Ala	Ser	Gln	Gly	Ser
	130					135					140				
Trp	Val	Gly	Trp	Val	Leu	Arg	Pro	Pro	Gln	Thr	Ser	Thr	Glu	Thr	Cys
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Pro	Cys	Ala	Val	Cys	Thr	Leu	His	Ser	Leu	Pro	Cys	Leu			
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<210> 4861

<211> 1622

<212> DNA

<213> Homo sapiens

<400> 4861

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<210> 4862
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 <212> PRT
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<400> 4862
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 Leu Thr Arg His Leu Arg Asp Pro Phe Val Lys Ala Ala Lys Val Glu
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 Ser Tyr Arg Cys Arg Ser Ala Phe Lys Leu Leu Glu Val Asn Glu Arg
 65 70 75 80
 His Gln Ile Leu Arg Pro Gly Leu Arg Val Leu Asp Cys Gly Ala Ala
 85 90 95
 Pro Gly Ala Trp Ser Gln Val Ala Val Gln Lys Val Asn Ala Ala Gly
 100 105 110
 Thr Asp Pro Ser Ser Pro Val Gly Phe Val Leu Gly Val Asp Leu Leu
 115 120 125
 His Ile Phe Pro Leu Glu Gly Ala Thr Phe Leu Cys Pro Ala Asp Val
 130 135 140
 Thr Asp Pro Arg Thr Ser Gln Arg Ile Leu Glu Val Leu Pro Gly Arg
 145 150 155 160
 Arg Ala Asp Val Ile Leu Ser Asp Met Ala Pro Asn Ala Thr Gly Phe
 165 170 175
 Arg Asp Leu Asp His Asp Arg Leu Ile Ser Leu Cys Leu Thr Leu Leu
 180 185 190
 Ser Val Thr Pro Asp Ile Leu Gln Pro Gly Gly Thr Phe Leu Cys Lys
 195 200 205
 Thr Trp Ala Gly Ser Gln Ser Arg Arg Leu Gln Arg Arg Leu Thr Glu
 210 215 220
 Glu Phe Gln Asn Val Arg Ile Ile Lys Pro Glu Ala Ser Arg Lys Glu
 225 230 235 240
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 245 250 255
 Thr Val Lys Gln
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<210> 4863
 <211> 355
 <212> DNA
 <213> Homo sapiens

<400> 4863
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<210> 4864
 <211> 118
 <212> PRT
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 35 40 45
 Asp Pro Gly His Ala Asp Leu Val Leu Tyr Ile Thr Arg Phe Asp Leu
 50 55 60
 Glu Leu Pro Asp Gly Asn Xaa Ala Val Arg Gly Val Thr Gln Leu Gly
 65 70 75 80
 Gly Ala Cys Ser Pro Thr Trp Ser Cys Leu Ile Thr Glu Asp Thr Gly
 85 90 95
 Phe Asp Leu Gly Val Thr Ile Ala His Glu Ile Gly His Ser Phe Gly
 100 105 110
 Leu Glu His Asp Gly Ala
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<210> 4865
 <211> 444
 <212> DNA
 <213> Homo sapiens

<400> 4865
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<210> 4866

<211> 148
 <212> PRT
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<400> 4866
 Thr Gly Glu Lys Pro Tyr Lys Cys Glu Val Cys Ser Lys Ala Phe Ser
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 Gln Ser Ser Asp Leu Ile Lys His Gln Arg Thr His Thr Gly Glu Arg
 20 25 30
 Pro Tyr Lys Cys Pro Arg Cys Gly Lys Ala Phe Ala Asp Ser Ser Tyr
 35 40 45
 Leu Leu Arg His Gln Arg Thr His Ser Gly Gln Lys Pro Tyr Lys Cys
 50 55 60
 Pro His Cys Gly Lys Ala Phe Gly Asp Ser Ser Tyr Leu Leu Arg His
 65 70 75 80
 Gln Arg Thr His Ser His Glu Arg Pro Tyr Ser Cys Thr Glu Cys Gly
 85 90 95
 Lys Cys Tyr Ser Gln Asn Ser Ser Leu Arg Ser His Gln Arg Val His
 100 105 110
 Thr Gly Gln Arg Pro Phe Ser Cys Gly Ile Cys Gly Lys Ser Phe Ser
 115 120 125
 Gln Arg Ser Ala Leu Ile Pro His Ala Arg Ser His Ala Arg Glu Lys
 130 135 140
 Pro Phe Thr Arg
 145

<210> 4867
 <211> 391
 <212> DNA
 <213> Homo sapiens

<400> 4867
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 180
 gagacagccc caggggggtgc tgcctggaga cagccgggat agcttcagtc tcctgaccct
 240
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 391

<210> 4868
 <211> 125
 <212> PRT
 <213> Homo sapiens

<400> 4868
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		20				25						30			
Gly	Leu	Lys	Met	Pro	Ile	Val	Trp	Trp	Cys	Ser	Pro	Cys	Gln	Gly	Gln
		35				40						45			
Glu	Thr	Glu	Ala	Ile	Pro	Ala	Val	Ser	Arg	Gln	His	Pro	Leu	Gly	Leu
		50				55					60				
Ser	Leu	Gly	Trp	Gly	Tyr	Pro	Gly	Met	Gly	Asp	Phe	Ser	Tyr	Gln	Asn
65					70					75					80
Gly	Asp	Val	Glu	Lys	Glu	Ala	Asp	Val	Pro	Arg	Leu	Val	Ala	Ser	Phe
				85					90					95	
Cys	Pro	Ser	His	Pro	Pro	Thr	Lys	Asp	Met	Arg	Leu	Leu	Pro	Ser	Asn
			100					105					110		
Leu	Leu	Gly	Ala	Ser	Pro	Asp	Arg	Thr	Pro	Ser	Gly	Ile			
		115					120					125			

<210> 4869

<211> 418

<212> DNA

<213> Homo sapiens

<400> 4869

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120
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418

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<210> 4870

<211> 125

<212> PRT

<213> Homo sapiens

<400> 4870

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Trp	Thr	Arg	Arg	Gln	Pro	Ser	Phe	Leu	Gly	Gln	Asp	Cys	Thr	Asp	Cys
			20					25				30			
Leu	Gly	Arg	Gly	Leu	Trp	Pro	Pro	Gly	Ser	Cys	Arg	Gly	Ala	Arg	Gly
		35					40					45			
Gly	Pro	Val	Ser	Ser	Trp	Ser	Gln	Val	Gly	Pro	Ile	Arg	Cys	Asp	Pro
		50				55					60				
Val	Pro	Pro	Gln	Gln	Pro	Trp	Arg	Arg	Gly	Thr	Leu	Pro	Ala	Val	Ala
65					70					75					80
Ala	Ala	Val	Phe	Leu	Ala	Cys	Glu	Arg	Arg	Gly	Gln	Ser	Gly	Arg	Trp

				85						90					95				
Glu	Ser	Gly	Cys	Cys	Lys	Val	Thr	Thr	Asn	Ser	Ser	Leu	Gly	Glu	Glu				
			100						105				110						
Glu	Glu	Asn	Ala	Ile	Asp	Phe	Gln	Glu	Pro	Ser	Glu	Val							
		115					120					125							

<210> 4871

<211> 1354

<212> DNA

<213> Homo sapiens

<400> 4871

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120
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780
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840
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960
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1020
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1080
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1140
cctcgagaag aaaagcagtt tcctcagcgt catctggcag gtaacagagt ggggcgggtc
1200
caagccggct agacttcccg tcctcccctt cccgactgca ttcagtcccg ccgggaccgt
1260

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 1320
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 1354

<210> 4872
 <211> 90
 <212> PRT
 <213> Homo sapiens

<400> 4872
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 20 25 30
 His Ala Pro Ser Glu Ser Gly Gly His Leu Pro Val Pro Ala Ser Pro
 35 40 45
 Val Pro Ala Pro Ala Ala Ala Trp Ser Val Ser Thr Ala Ala Ala Ala
 50 55 60
 Pro Ala Ala Cys Arg Pro Ala Ala Gly Ala Gly Pro Cys Gln Gly His
 65 70 75 80
 Gln Gly Leu Pro Gly Ser Pro Leu Pro Glu
 85 90

<210> 4873
 <211> 948
 <212> DNA
 <213> Homo sapiens

<400> 4873
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 ccactgtgag ttgaactctt tcgtgttgac cggccactct ccgtgctctg gatgatgtcg
 180
 gaacacgacc tggccgatgt ggttcaaatt gcagtggaag acctgagccc tgaccaccca
 240
 ggtacagagc tgtgggacag tgttgttttg gagaatcatg tagtgacaga tgaagacgaa
 300
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 360
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 420
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 480
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 540
 aacaaagtgc gatggtaaga acagaccagg gtgccggggc cttcaggtca cttggggaga
 600
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 660
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 720

cgaacacatg gcacccctgcc aggatgacct gaagtcaccc tcacctttcc tttccacata
 780
 aagccggccc atacaccttt tctttggaac taaccaccca gatcttagaa gatgtacacg
 840
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 948

<210> 4874

<211> 128

<212> PRT

<213> Homo sapiens

<400> 4874

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Asp	Leu	Ser	Pro	Asp	His	Pro	Gly	Thr	Glu	Leu	Trp	Asp	Ser	Val	Val
			20					25					30		
Leu	Glu	Asn	His	Val	Val	Thr	Asp	Glu	Asp	Glu	Pro	Ala	Leu	Lys	Arg
		35					40					45			
Gln	Arg	Leu	Glu	Ile	Asn	Cys	Gln	Asp	Pro	Ser	Ile	Lys	Ser	Phe	Leu
	50					55				60					
Tyr	Ser	Ile	Asn	Gln	Thr	Ile	Cys	Leu	Arg	Leu	Asp	Ser	Ile	Glu	Ala
65				70					75					80	
Lys	Leu	Gln	Ala	Leu	Glu	Ala	Thr	Cys	Lys	Ser	Leu	Glu	Glu	Lys	Leu
			85					90					95		
Asp	Leu	Val	Thr	Asn	Lys	Gln	His	Ser	Pro	Ile	Gln	Val	Pro	Met	Val
			100					105					110		
Ala	Gly	Ser	Pro	Leu	Arg	Thr	Thr	Gln	Met	Cys	Asn	Lys	Val	Arg	Trp
		115					120					125			

<210> 4875

<211> 1255

<212> DNA

<213> Homo sapiens

<400> 4875

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 120
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 180
 aaaatacttt gcagctggtg agaaatatca tacctcctct gtcttccaca aagcacaaag
 240
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 300
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 420
 gccccaatgc tgttcatgag gtggagaagt ggctgccccg gctgcatgct cttgtcgtag
 480

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 540
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 780
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 1020
 aatgggtcca gccctctcct ggtggccgcg tttgggcct gctctctcac caggcagtgc
 1080
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 1200
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 1255

<210> 4876

<211> 230

<212> PRT

<213> Homo sapiens

<400> 4876

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Ala	Val	His	Glu	Val	Glu	Lys	Trp	Leu	Pro	Arg	Leu	His	Ala	Leu	Val
			20					25					30		
Val	Gly	Thr	Gly	Leu	Gly	Arg	Asp	Asp	Ala	Leu	Leu	Arg	Asn	Val	Gln
			35				40					45			
Gly	Ile	Leu	Glu	Val	Ser	Lys	Ala	Arg	Asp	Ile	Pro	Val	Val	Ile	Asp
	50					55					60				
Ala	Asp	Gly	Leu	Trp	Leu	Val	Ala	Gln	Gln	Pro	Ala	Leu	Ile	His	Gly
65					70				75					80	
Tyr	Arg	Lys	Ala	Val	Leu	Thr	Pro	Asn	His	Val	Glu	Phe	Ser	Arg	Leu
				85				90						95	
Tyr	Asp	Ala	Val	Leu	Arg	Gly	Pro	Met	Asp	Ser	Asp	Asp	Ser	His	Gly
			100				105						110		
Ser	Val	Leu	Arg	Leu	Ser	Gln	Ala	Leu	Gly	Asn	Val	Thr	Val	Val	Gln
		115				120						125			
Lys	Gly	Glu	Arg	Asp	Ile	Leu	Ser	Asn	Gly	Gln	Gln	Val	Leu	Val	Cys
	130					135					140				
Ser	Gln	Glu	Gly	Ser	Ser	Arg	Arg	Cys	Gly	Gly	Gln	Gly	Asp	Leu	Leu
145				150					155					160	
Ser	Gly	Ser	Leu	Gly	Val	Leu	Val	His	Trp	Ala	Leu	Leu	Ala	Gly	Pro

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<210> 4878

<211> 122

<212> PRT

<213> Homo sapiens

<400> 4878

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Leu	Ile	Ile	Leu	Leu	Gln	Gly	Leu	Gln	Gly	Arg	Val	Thr	Thr	Val	Asp
			20				25					30			
Leu	Arg	Asp	Glu	Ser	Val	Ala	His	Gly	Arg	Ile	Asp	Asn	Val	Asp	Ala
		35				40					45				
Phe	Met	Asn	Ile	Arg	Leu	Ala	Lys	Val	Thr	Tyr	Thr	Asp	Arg	Trp	Gly
	50				55				60						
His	Gln	Val	Lys	Leu	Asp	Asp	Leu	Phe	Val	Thr	Gly	Arg	Asn	Val	Arg
65				70				75					80		
Tyr	Val	His	Ile	Pro	Asp	Asp	Val	Asn	Ile	Thr	Ser	Thr	Ile	Glu	Gln
			85				90						95		
Gln	Leu	Gln	Ile	Ile	His	Arg	Val	Arg	Asn	Phe	Gly	Gly	Lys	Gly	Gln
		100					105						110		
Gly	Arg	Trp	Glu	Phe	Pro	Pro	Lys	Lys	Leu						
		115					120								

<210> 4879

<211> 1941

<212> DNA

<213> Homo sapiens

<400> 4879

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 1920
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 1941

<210> 4880

<211> 202

<212> PRT

<213> Homo sapiens

<400> 4880

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His	Lys	Pro	Gly	Leu	Gly	Lys	Cys	Pro	Asp	Leu	Pro	Gly	Gly	His	Thr

			20					25					30		
Ser	Leu	Ala	Ala	Ser	Ala	Gly	His	Ala	Ala	Ser	Pro	Val	Leu	Pro	Ser
		35					40					45			
Ala	Thr	Ala	Ser	Gly	Pro	His	Val	Lys	Ser	His	Leu	Thr	Arg	Val	Val
	50					55					60				
Thr	Thr	Val	Leu	Phe	Trp	Gly	Phe	Ser	Lys	Ala	Ser	Pro	Val	Val	Leu
65					70					75					80
Arg	Gly	His	Ser	Glu	Gln	Ala	Asn	Thr	Ala	Arg	Val	Thr	His	Tyr	Thr
				85					90					95	
Gln	Arg	Lys	Asp	Asn	Glu	Gln	Met	Ala	Ile	Val	Glu	Asn	Ser	Val	Val
			100					105					110		
Cys	Phe	Ser	Asn	Ala	Thr	Tyr	Phe	Ser	Arg	Gln	Val	Ile	Leu	Pro	Met
		115					120					125			
Met	Thr	Ser	Ala	Thr	Lys	Leu	Arg	Ala	Arg	Gly	Leu	Pro	Met	Arg	Leu
	130					135					140				
Val	Glu	Ser	Asn	His	Val	Cys	Ser	Glu	Ala	Ser	Gly	Pro	Ser	Arg	Pro
145					150					155					160
Cys	His	Arg	Pro	Glu	His	Arg	Thr	Val	Ile	Met	Gln	Arg	Ala	Val	Thr
				165					170					175	
Glu	Ala	Gly	Val	Ser	Val	Gly	Gly	Gly	Glu	Glu	Gly	Thr	Ser	Ala	Phe
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Tyr	Ile	Arg	Ser	Glu	Ala	Thr	Val	Arg	Lys						
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<210> 4881

<211> 1333

<212> DNA

<213> Homo sapiens

<400> 4881

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180	ctagggtttt	gatacatgac	gcagcaactg	atgaacctgg	caggaggcgc	agtgggtgct
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540	agtgagctgg	gcctgtgggt	ccctgaaaga	ctgggtggctg	atgtactgtt	ttctataggt
600	ggatccgggt	tgaggaagaa	gctggaaaca	gaaacccaac	ctcaatgcca	tccgctctct
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<210> 4882

<211> 100

<212> PRT

<213> Homo sapiens

<400> 4882

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Arg	Glu	Ala	Thr	Gly	Val	Glu	Asn	Arg	Val	Thr	Ser	Pro	Leu	Pro	Pro
			20					25					30		
Leu	Pro	Phe	Leu	Pro	Ser	Gln	Pro	Leu	Gly	Phe	Gly	Tyr	Met	Thr	Gln
		35				40					45				
Gln	Leu	Met	Asn	Leu	Ala	Gly	Gly	Ala	Val	Val	Leu	Ala	Leu	Glu	Gly
	50					55				60					
Gly	His	Asp	Leu	Thr	Ala	Ile	Cys	Asp	Ala	Ser	Glu	Ala	Cys	Val	Ala
65					70				75					80	
Ala	Leu	Leu	Gly	Asn	Arg	Val	Ser	Arg	Leu	Pro	Pro	Pro	Ser	Met	Leu
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Leu	Ser	Gly	Arg												
			100												

<210> 4883

<211> 1371

<212> DNA

<213> Homo sapiens

<400> 4883

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 180
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 240
 ctacagaagt taatatcggt ggatttatat gataaccaga ttgaagaaat tagtgggctt
 300
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 480
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<210> 4884<211> 410

<212> PRT

<213> Homo sapiens

<400> 4884

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		20					25					30			
Leu	Arg	Leu	Leu	Asn	Phe	Gln	His	Asn	Phe	Ile	Thr	Arg	Ile	Gln	Asn
	35						40					45			

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 50                               55                               60
Ile Glu Glu Ile Ser Gly Leu Ser Thr Leu Arg Cys Leu Arg Val Leu
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Leu Leu Gly Lys Asn Arg Ile Lys Lys Ile Ser Asn Leu Glu Asn Leu
 85                               90                               95
Lys Ser Leu Asp Val Leu Asp Leu His Gly Asn Gln Ile Thr Lys Ile
100                               105                               110
Glu Asn Ile Asn His Leu Cys Glu Leu Arg Val Leu Asn Leu Ala Arg
115                               120                               125
Asn Phe Leu Ser His Val Asp Asn Leu Asn Gly Leu Asp Ser Leu Thr
130                               135                               140
Glu Leu Asn Leu Arg His Asn Gln Ile Thr Phe Val Arg Asp Val Asp
145                               150                               155                               160
Asn Leu Pro Cys Leu Gln His Leu Phe Leu Ser Phe Asn Asn Ile Ser
165                               170                               175
Ser Phe Asp Ser Val Ser Cys Leu Ala Asp Ser Ser Ser Leu Ser Asp
180                               185                               190
Ile Thr Phe Asp Gly Asn Pro Ile Ala Gln Glu Ser Trp Tyr Lys His
195                               200                               205
Thr Val Leu Gln Asn Met Met Gln Leu Arg Gln Leu Asp Met Lys Arg
210                               215                               220
Ile Thr Glu Glu Glu Arg Arg Met Ala Ser Val Leu Ala Lys Lys Glu
225                               230                               235                               240
Glu Glu Lys Lys Arg Glu Ser His Lys Gln Ser Leu Leu Lys Glu Lys
245                               250                               255
Lys Arg Leu Thr Ile Asn Asn Val Ala Arg Gln Trp Asp Leu Gln Gln
260                               265                               270
Arg Val Ala Asn Ile Ala Thr Asn Glu Asp Arg Lys Asp Ser Asp Ser
275                               280                               285
Pro Gln Asp Pro Cys Gln Ile Asp Gly Ser Thr Leu Ser Ala Phe Pro
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Glu Glu Thr Gly Pro Leu Asp Ser Gly Leu Asn Asn Ala Leu Gln Gly
305                               310                               315                               320
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325                               330                               335
Ser Leu Tyr Gly Ser Gly Ala Leu Glu Ser Leu Asp Arg Asn Trp Ser
340                               345                               350
Val Gln Thr Ala Gly Met Ile Thr Thr Val Ser Phe Thr Phe Ile Glu
355                               360                               365
Phe Asp Glu Ile Val Gln Val Leu Pro Lys Leu Lys Ile Lys Phe Pro
370                               375                               380
Asn Ser Leu His Leu Lys Phe Lys Glu Thr Asn Leu Val Met Gln Gln
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<210> 4885

<211> 489

<212> DNA

<213> Homo sapiens

<400> 4885

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<210> 4886

<211> 77

<212> PRT

<213> Homo sapiens

<400> 4886

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			20					25					30		
Val	Asn	Phe	Thr	Arg	Xaa	Glu	Trp	Arg	Glu	Leu	Asp	Leu	Ala	Gln	Arg
		35					40					45			
Val	Leu	Tyr	Arg	Asp	Val	Met	Leu	Glu	Asn	Tyr	Arg	Asn	Leu	Val	Ser
	50					55					60				
Leu	Val	Gly	Phe	Pro	Phe	Ser	Lys	Pro	Gly	Ile	Ile	Ser			
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<210> 4887

<211> 2271

<212> DNA

<213> Homo sapiens

<400> 4887

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 300
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 360

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420
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1980

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<210> 4888

<211> 429

<212> PRT

<213> Homo sapiens

<400> 4888

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			20					25					30		
Ser	Ala	His	Tyr	His	Val	Asn	Phe	Ser	Gln	Ala	Ile	Ser	Gln	Asp	Val
			35				40					45			
Asn	Leu	His	Glu	Ala	Ile	Leu	Cys	Pro	Asn	Asn	Thr	Phe	Arg	Arg	
	50					55				60					
Asp	Pro	Thr	Ala	Arg	Thr	Ser	Gln	Ser	Gln	Glu	Pro	Phe	Leu	Gln	Leu
65					70					75					80
Asn	Ser	His	Thr	Thr	Asn	Pro	Glu	Gln	Thr	Leu	Pro	Gly	Thr	Asn	Leu
				85					90					95	
Thr	Gly	Phe	Leu	Ser	Pro	Val	Asp	Asn	His	Met	Arg	Asn	Leu	Thr	Ser
			100					105					110		
Gln	Asp	Leu	Leu	Tyr	Asp	Leu	Asp	Ile	Asn	Ile	Phe	Asp	Glu	Ile	Asn
		115					120					125			
Leu	Met	Ser	Leu	Ala	Thr	Glu	Asp	Asn	Phe	Asp	Pro	Ile	Asp	Val	Ser
	130					135					140				
Gln	Leu	Phe	Asp	Glu	Pro	Asp	Ser	Asp	Ser	Gly	Leu	Ser	Leu	Asp	Ser
145					150					155					160
Ser	His	Asn	Asn	Thr	Ser	Val	Ile	Lys	Ser	Asn	Ser	Ser	His	Ser	Val
				165					170					175	
Cys	Asp	Glu	Gly	Ala	Ile	Gly	Tyr	Cys	Thr	Asp	His	Glu	Ser	Ser	Ser
			180					185				190			
His	His	Asp	Leu	Glu	Gly	Ala	Val	Gly	Gly	Tyr	Tyr	Pro	Glu	Pro	Ser
		195					200					205			
Lys	Leu	Cys	His	Leu	Asp	Gln	Ser	Asp	Ser	Asp	Phe	His	Gly	Asp	Leu
	210					215					220				
Thr	Phe	Gln	His	Val	Phe	His	Asn	His	Thr	Tyr	His	Leu	Gln	Pro	Thr
225					230					235					240
Ala	Pro	Glu	Ser	Thr	Ser	Asp	Xaa	Phe	Pro	Xaa	Ala	Gly	Lys	Ser	Gln
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Lys	Ile	Arg	Ser	Arg	Tyr	Leu	Glu	Asp	Pro	Asp	Arg	Thr	Leu	Ser	Arg
			260					265					270		
Asp	Asp	Gln	Arg	Ala	Lys	Ala	Leu	His	Ile	Pro	Phe	Ser	Val	Asp	Glu
		275					280					285			
Ile	Val	Gly	Met	Pro	Val	Asp	Ser	Phe	Asn	Ser	Met	Leu	Ser	Arg	Tyr

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Tyr Leu Thr Asp Leu Gln Val Ser Leu Ile Arg Asp Ile Arg Arg Arg		
305	310	315
Gly Lys Asn Lys Val Ala Ala Gln Asn Cys Arg Lys Arg Lys Leu Asp		320
	325	330
Ile Ile Leu Asn Leu Glu Asp Asp Val Cys Asn Leu Gln Ala Lys Lys		335
	340	345
Glu Thr Leu Lys Arg Glu Gln Ala Gln Cys Asn Lys Ala Ile Asn Ile		350
	355	360
Met Lys Gln Lys Leu His Asp Leu Tyr His Asp Ile Phe Ser Arg Leu		365
	370	375
Arg Asp Asp Gln Gly Arg Pro Val Asn Pro Asn His Tyr Ala Leu Gln		380
385	390	395
Cys Thr His Asp Gly Ser Ile Leu Ile Val Pro Lys Glu Leu Val Ala		400
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<210> 4889

<211> 619

<212> DNA

<213> Homo sapiens

<400> 4889

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<210> 4890

<211> 90

<212> PRT

<213> Homo sapiens

<400> 4890

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		20						25					30		
Arg	Thr	Gly	Gln	Pro	Gln	Pro	Ala	Pro	Thr	Arg	Val	Asn	Ile	Ser	Arg
		35					40					45			
Pro	Ser	Pro	Thr	Leu	Phe	Pro	Asp	Ser	Gln	Gln	Thr	Asp	Val	Gly	Ser
	50					55					60				
Arg	Thr	Asp	Pro	Phe	Thr	His	Thr	His	Thr	His	Ser	His	Ser	Phe	Ala
65				70					75					80	
His	Ile	His	Ser	Cys	Thr	His	Ala	Met	Tyr						
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<210> 4891

<211> 1998

<212> DNA

<213> Homo sapiens

<400> 4891

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1080

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<210> 4892

<211> 216

<212> PRT

<213> Homo sapiens

<400> 4892

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<210> 4893

<211> 5212

<212> DNA

<213> Homo sapiens

<400> 4893

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<211> 399

<212> PRT

<213> Homo sapiens

<400> 4894

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Pro	Ser	Ala	Arg	Ala	Arg	Pro	Arg	His	Lys	Ser	Leu	Asn	Ile	Lys	Asp
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Pro	Pro	Leu	Pro	Ser	Ser	Pro	Pro	Pro	Ser	Ser	Val	Asn	Arg	Arg	Leu	
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Trp	Thr	Gly	Arg	Gln	Lys	Ser	Ser	Ala	Asp	His	Arg	Lys	Ser	Tyr	Glu	
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Phe	Glu	Asp	Leu	Leu	Gln	Ser	Ser	Ser	Glu	Ser	Ser	Arg	Val	Asp	Trp	
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Tyr	Ala	Gln	Thr	Lys	Leu	Gly	Leu	Thr	Arg	Thr	Leu	Ser	Glu	Glu	Asn	
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<210> 4895

<211> 1087

<212> DNA

<213> Homo sapiens

<400> 4895

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<210> 4896

<211> 109

<212> PRT

<213> Homo sapiens

<400> 4896

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			20					25					30		
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<210> 4897

<211> 1733

<212> DNA

<213> Homo sapiens

<400> 4897

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<210> 4898

<211> 92

<212> PRT

<213> Homo sapiens

<400> 4898

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			20					25					30		
Ser	Ser	Trp	Asp	Tyr	Arg	Arg	Pro	Pro	Arg	Cys	Pro	Ala	Asn	Phe	Cys
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<210> 4899

<211> 444

<212> DNA

<213> Homo sapiens

<400> 4899

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444

<210> 4900

<211> 118

<212> PRT

<213> Homo sapiens

<400> 4900

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		20				25					30				
Arg	Gln	Gln	Arg	Gly	Pro	Leu	Gly	Trp	Val	Gly	Val	Leu	Leu	Asp	Ser
		35				40					45				
Gly	Gly	Gly	Glu	His	Leu	Pro	Phe	Pro	Gln	Pro	Cys	Val	His	Pro	Gln
	50					55					60				
Met	Leu	Leu	Ala	His	Arg	Ile	Ser	Gln	Cys	His	Gly	Pro	Thr	Thr	Ala
65					70					75				80	
Arg	Leu	Gly	Pro	Val	Ser	Gly	Gln	His	Pro	Glu	Gly	Gln	Gly	Pro	Ser
				85					90					95	
Val	Leu	Thr	Lys	Glu	Ala	Leu	Gly	Val	Ala	Val	Pro	Ala	Pro	Met	Gly
			100					105					110		
Leu	Leu	Leu	Gly	Arg	Gly										
			115												

<210> 4901

<211> 1520

<212> DNA

<213> Homo sapiens

<400> 4901

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120
gcacggcggc gtgctgctgt gttgaggacg ctgtcccgcg cgctcccagg ccgccccgag
180
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240
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300
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420
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660
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720
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780
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840
tatgcagaca gtagctgtc ctcagccctt tgggggggtg ggggtgtgtg ctgtctgggt
900
ggatcaaaga aaataggac tgccttggct gccagggcaa ggtgctctag gaggtcttc
960

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tggcctcctt gaactgtggg gtccaggaga ctccctgaac tgctagccct cccctttgtc
 1020
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 1080
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 1140
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 1200
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 1260
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 1320
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 1380
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 1520

<210> 4902

<211> 184

<212> PRT

<213> Homo sapiens

<400> 4902

Met	Ser	Gly	Gln	Arg	Val	Asp	Val	Lys	Val	Val	Met	Leu	Gly	Lys	Glu
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Tyr	Val	Gly	Lys	Thr	Ser	Leu	Val	Glu	Arg	Tyr	Val	His	Asp	Arg	Phe
			20					25					30		
Leu	Val	Gly	Pro	Tyr	Gln	Asn	Thr	Ile	Gly	Ala	Ala	Phe	Val	Ala	Lys
		35					40					45			
Val	Met	Ser	Val	Gly	Asp	Arg	Thr	Val	Thr	Leu	Gly	Ile	Trp	Asp	Thr
	50					55					60				
Ala	Gly	Ser	Glu	Arg	Tyr	Glu	Ala	Met	Ser	Arg	Ile	Tyr	Tyr	Arg	Gly
65				70					75					80	
Ala	Lys	Ala	Ala	Ile	Val	Cys	Tyr	Asp	Leu	Thr	Asp	Ser	Ser	Ser	Phe
			85					90					95		
Glu	Arg	Ala	Lys	Phe	Trp	Val	Lys	Glu	Leu	Arg	Ser	Leu	Glu	Glu	Gly
		100						105					110		
Cys	Gln	Ile	Tyr	Leu	Cys	Gly	Thr	Lys	Ser	Asp	Leu	Leu	Glu	Glu	Asp
		115					120					125			
Arg	Arg	Arg	Arg	Arg	Val	Asp	Phe	His	Asp	Val	Gln	Asp	Tyr	Ala	Asp
	130					135					140				
Ser	Ser	Cys	Ser	Ser	Ala	Leu	Trp	Gly	Val	Gly	Val	Cys	Gly	Cys	Leu
145				150					155					160	
Gly	Gly	Ser	Lys	Lys	Ile	Gly	Thr	Ala	Leu	Ala	Ala	Arg	Ala	Arg	Cys
			165					170						175	
Ser	Arg	Arg	Ser	Ser	Trp	Pro	Pro								
			180												

<210> 4903

<211> 1064

<212> DNA

<213> Homo sapiens

<400> 4903

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120
tcattattcc cacatccctt tccttactac ttgcctgcac ttcttgagaa aaagactgca
180
gaaaggagag gtggggcctt cagtagaaac aagcaaaccg cagtccctgt ggggggactc
240
tccaggaaga aggttccgca agaaccgtgg gcgacagtta tggagaagcg tctgcaggag
300
gctcagctgt acaaggagga aggggaaccag cgctaccggg aagggaagta ccgagatgct
360
gtgagtaggt accatcgagc tctgcttcag ctgcgggggc tggatccgna gtctgccttc
420
tccgttacct aatctcggac ctacggggccc nggcctcac gcctgnaaca agaaaacata
480
ttgcatacca ccagacaga ctgctataac aatctagctg cttgtctcct tcagatggag
540
cccgtgaact acgaacgagt gagagaatat agtcagaaag tcctggaacg acagcctgat
600
aatgccaagg ccttgtatcg ggccggagtg gcctttttcc atctgcagga ctatgaccag
660
gcccgccact acctcctggc tgccgtgaat aggcagccta aagatgcaa cgtccggcgg
720
tacctccagc tgacacagtc agaactcagc agctaccata gaaaagagaa gcagctctac
780
ctgggcatgt ttgggtaaca aagaagaaag atgctcctcc agttgaactt aggtggacca
840
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900
accaggtgg atttttgttt ctagttctgc acaaacttca ctacttagac agtctgagtc
960
ttttctgtgc tatccatctg tttattttcta tacctttcaa tacatgttat tgttgagat
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1064

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<210> 4904

<211> 106

<212> PRT

<213> Homo sapiens

<400> 4904

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Cys Trp Ala Ser Leu Phe Pro His Pro Phe Pro Tyr Tyr Leu Pro Ala
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Leu Leu Glu Lys Lys Thr Ala Glu Arg Arg Gly Gly Ala Phe Ser Arg
      20             25             30
Asn Lys Gln Thr Ala Val Pro Val Gly Gly Leu Ser Arg Lys Lys Val
      35             40             45
Pro Gln Glu Pro Trp Ala Thr Val Met Glu Lys Arg Leu Gln Glu Ala

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50		55		60											
Gln	Leu	Tyr	Lys	Glu	Glu	Gly	Asn	Gln	Arg	Tyr	Arg	Glu	Gly	Lys	Tyr
65				70				75							80
Arg	Asp	Ala	Val	Ser	Arg	Tyr	His	Arg	Ala	Leu	Leu	Gln	Leu	Arg	Gly
			85					90						95	
Leu	Asp	Pro	Xaa	Ser	Ala	Leu	Ser	Val	Thr						
		100						105							

<210> 4905

<211> 615

<212> DNA

<213> Homo sapiens

<400> 4905

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120
tgcccggcgg tccagcgagg gtggcacgaa caggaggcct gcccctgggc acagcacgct
180
taggggcagc gactgtgtct ggcagcggca gcggcgggga catgggctgg gtgtgccgag
240
acactggagg acctcgacct ctctacaac aacctcgagc agctgccctg ggaggccctg
300
ggccgcctgg gcaacgtcaa cacgttgggc ctgcaccaca acctgctggc ttctgtgccc
360
gccggcgctt tttccgcct gcacaagctg gcccggtgg acatgacctc caaccgcctg
420
accacaatcc caccgcacct actcttctcc cgccctgcccc tgctcgccag gccccggggc
480
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540
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gctctgggcg gccgc
615

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<210> 4906

<211> 144

<212> PRT

<213> Homo sapiens

<400> 4906

Gly	Gln	Arg	Leu	Cys	Leu	Ala	Ala	Ala	Ala	Ala	Gly	Thr	Trp	Ala	Gly
1				5				10						15	
Cys	Ala	Glu	Thr	Leu	Glu	Asp	Leu	Asp	Leu	Ser	Tyr	Asn	Asn	Leu	Glu
			20					25					30		
Gln	Leu	Pro	Trp	Glu	Ala	Leu	Gly	Arg	Leu	Gly	Asn	Val	Asn	Thr	Leu
		35					40				45				
Gly	Leu	Asp	His	Asn	Leu	Leu	Ala	Ser	Val	Pro	Ala	Gly	Ala	Phe	Ser
		50				55				60					
Arg	Leu	His	Lys	Leu	Ala	Arg	Leu	Asp	Met	Thr	Ser	Asn	Arg	Leu	Thr
65				70						75				80	
Thr	Ile	Pro	Pro	Asp	Pro	Leu	Phe	Ser	Arg	Leu	Pro	Leu	Leu	Ala	Arg

	85		90		95
Pro Arg Gly Ser Pro Ala Ser Ala Leu Val Leu Ala Phe Gly Gly Asn					
	100		105		110
Pro Leu His Cys Asn Cys Glu Leu Val Trp Leu Arg Arg Leu Ala Arg					
	115		120		125
Glu Asp Asp Leu Glu Ala Cys Ala Ser Pro Pro Ala Leu Gly Gly Arg					
	130		135		140

<210> 4907

<211> 1748

<212> DNA

<213> Homo sapiens

<400> 4907

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120
gtggccagca gctgggtccc gctcttctgc cccaacagct gtatccacag gttgtgaggg
180
gggaacgact gttctgtaac ccctacaacg gagcctggca ggaaggaaat cacctaaaaa
240
agaaactgtc agagagattt aatagtcaca tggtatcatt aggagttggg tactgtgtca
300
cattcatgct ttagctaaa cactttaaga ttcaatatta ctttttttct ctctctgaa
360
atgtgtccgg tgaagatgtc ccactaagggt aagtttgaca tgggtgtaagg gagttgaaag
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1200

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 1260
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 1560
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 1620
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 accgcgcc
 1748

<210> 4908

<211> 55

<212> PRT

<213> Homo sapiens

<400> 4908

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Pro	Tyr	Pro	Cys	Pro	His	Gly	Asp	Arg	Leu	Leu	Pro	Pro	Ser	Arg	Pro
			20					25					30		
Leu	Pro	Ala	Gly	Pro	Ala	Ser	Ala	Phe	Pro	Pro	Ala	Glu	Arg	Ser	Arg
		35					40					45			
Gly	His	Arg	Arg	Ala	Ser	Leu									
50						55									

<210> 4909

<211> 1960

<212> DNA

<213> Homo sapiens

<400> 4909

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 cgcggctccc cgaaccggaa gtggagggtga gctgtcgcgg gcggcgcccc gccttgetca
 180
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 360

ctgatggaga aggaggagga ggggatgctg tcgcccaccc tggcccacgg gggggtccgt
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<210> 4910

<211> 423

<212> PRT

<213> Homo sapiens

<400> 4910

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          20           25           30
Phe Met Pro Ile Leu Met Glu Lys Glu Glu Glu Gly Met Leu Ser Pro
          35           40           45
Ile Leu Ala His Gly Gly Val Arg Phe Met Trp Ile Lys His Asn Asn
          50           55           60
Leu Tyr Leu Val Ala Thr Ser Lys Lys Asn Ala Cys Val Ser Leu Val
65           70           75           80
Phe Ser Phe Leu Tyr Lys Val Val Gln Val Phe Ser Glu Tyr Phe Lys
          85           90           95
Glu Leu Glu Glu Glu Ser Ile Arg Asp Asn Phe Val Ile Ile Tyr Glu
          100          105          110
Leu Leu Asp Glu Leu Met Asp Phe Gly Phe Pro Gln Thr Thr Asp Ser
          115          120          125
Lys Ile Leu Gln Glu Tyr Ile Thr Gln Gln Ser Asn Lys Leu Glu Thr
          130          135          140
Gly Lys Ser Arg Val Pro Pro Thr Val Thr Asn Ala Val Ser Trp Arg
145          150          155          160
Ser Glu Gly Ile Lys Tyr Lys Lys Asn Glu Val Phe Ile Asp Val Ile
          165          170          175
Glu Ser Val Asn Leu Leu Val Asn Ala Asn Gly Ser Val Leu Leu Ser
          180          185          190
Glu Ile Val Gly Thr Ile Lys Met Arg Val Phe Leu Ser Gly Met Pro
          195          200          205
Glu Leu Arg Leu Gly Leu Asn Asp Lys Val Leu Phe Asp Asn Thr Gly
          210          215          220
Arg Gly Lys Ser Lys Ser Val Glu Leu Glu Asp Val Lys Phe His Gln
225          230          235          240
Cys Val Arg Leu Ser Arg Phe Glu Asn Asp Arg Thr Ile Ser Phe Ile
          245          250          255
Pro Pro Asp Gly Glu Phe Glu Leu Met Ser Tyr Arg Leu Asn Thr His
          260          265          270
Val Lys Pro Leu Ile Trp Ile Glu Ser Val Ile Glu Lys Phe Ser His
          275          280          285
Ser Arg Ile Glu Tyr Met Val Lys Ala Lys Gly Gln Phe Lys Lys Gln
          290          295          300
Ser Val Ala Asn Gly Val Glu Ile Ser Val Pro Val Pro Ser Asp Ala
305          310          315          320
Asp Ser Pro Arg Phe Lys Thr Ser Val Gly Ser Ala Lys Tyr Val Pro
          325          330          335
Glu Arg Asn Val Val Ile Trp Ser Ile Lys Ser Phe Pro Gly Gly Lys
          340          345          350
Glu Tyr Leu Met Arg Ala His Phe Gly Leu Pro Ser Val Glu Lys Glu
          355          360          365
Glu Val Glu Gly Arg Pro Pro Ile Gly Val Lys Phe Glu Ile Pro Tyr

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370		375		380
Phe Thr Val Ser Gly	Ile Gln Val Arg Tyr Met	Lys Ile Ile Glu Lys		
385	390	395	400	
Ser Gly Tyr Gln Ala	Leu Pro Trp Val Arg Tyr	Ile Thr Gln Ser Gly		
	405	410	415	
Asp Tyr Gln Leu Arg Thr Ser				
420				

<210> 4911

<211> 1862

<212> DNA

<213> Homo sapiens

<400> 4911

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120
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180
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240
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300
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1200

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 ggctgtgctg ccattccagta cgtgctgaag gtcacctcog tgcgcctcgc tgcccagcct
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<210> 4912

<211> 453

<212> PRT

<213> Homo sapiens

<400> 4912

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Ser	Cys	Pro	Lys	Ala	Ile	Glu	Val	Val	Val	Asn	Ala	Tyr	Glu	His	Ile						
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<212> DNA
<213> Homo sapiens
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360
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 <213> Homo sapiens

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 Cys Leu Glu His Val Arg Asp Lys Trp Pro Arg Glu Gly Ile Leu Arg
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 Val Glu Val Arg His Asn Ser Ser Arg Ala Pro Val Phe Leu Gln Phe
 115 120 125
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 Gly Ser Asn Leu Asp Met Glu Asp Glu Glu Glu Glu Glu Leu Thr Met
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 Glu Met Phe Gly Asn Ser Ser Ile Lys Phe Glu Leu Asp Ile Glu Pro
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 Glu Phe Pro Phe Pro Glu Thr Pro Thr Lys Val Trp Pro Gln Asp Glu
 195 200 205
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 Ala Thr Arg Gln Arg Leu Ser Ile Pro Val Met Val Val Thr Leu Asp
 225 230 235 240
 Pro Thr Arg Asp Gln Cys Phe Gly Asp Arg Phe Ser Arg Leu Leu Leu
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 Asp Glu Phe Leu Gly Tyr Asp Asp Ile Leu Met Ser Ser Val Lys Gly
 260 265 270
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 275 280 285
 Gly Glu His Tyr Arg Phe Val Ser Met Trp Met Ala Arg Thr Ser Tyr
 290 295 300
 Leu Ala Ala Phe Ala Ile Met Val Ile Phe Thr Leu Ser Val Ser Met
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 Leu Leu Arg Tyr Ser His His Gln Ile Phe Val Phe Ile Val Asp Leu
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 Leu Gln Met Leu Glu Met Asn Met Ala Ile Ala Phe Pro Ala Ala Pro

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 355 360 365
 Glu Phe Phe Asn Asp Thr Thr Ala Phe Tyr Ile Ile Leu Ile Val
 370 375 380
 Trp Leu Ala Asp Gln Tyr Asp Ala Ile Cys Cys His Thr Ser Thr Ser
 385 390 395 400
 Lys Arg His Trp Leu Arg Phe Phe Tyr Leu Tyr His Phe Ala Phe Tyr
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 Ala Tyr His Tyr Arg Phe Asn Gly Gln Tyr Ser Ser Leu Ala Leu Val
 420 425 430
 Thr Ser Trp Leu Phe Ile Gln His Ser Met Ile Tyr Phe Phe His His
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 Tyr Glu Leu Pro Ala Ile Leu Gln Gln Val Arg Ile Gln Glu Met Leu
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 Leu Gln Ala Pro Pro Leu Gly Pro Gly Thr Pro Thr Ala Leu Pro Asp
 465 470 475 480
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<211> 1157

<212> DNA

<213> Homo sapiens

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<211> 59

<212> PRT

<213> Homo sapiens

<400> 4916

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			20					25					30		
Trp	Gly	Pro	Gly	Gly	Asp	Ala	Pro	Arg	Gly	Ser	Gly	Leu	Lys	Arg	Pro
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<211> 1544

<212> DNA

<213> Homo sapiens

<400> 4917

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<211> 347

<212> PRT

<213> Homo sapiens

<400> 4918

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Trp	Leu	Gly	Leu	Ala	Gly	Pro	Gly	Ala	Ala	Ala	Asp	Gly	Ser	Glu	Pro
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 Asp Val Val Asp Ala Glu Gln Glu Ala Pro Ala Asp Gly Trp Ile Ala
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 115 120 125
 Lys Gly Ser Gly Pro Gln Ala Tyr Pro Lys Ala Leu Val Gln Gln Met
 130 135 140
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 Asn His Asn Val Val Arg Glu Leu Asp Ile Ser Gln Leu Leu Leu Arg
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<210> 4919

<211> 1362

<212> DNA

<213> Homo sapiens

<400> 4919

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<211> 194

<212> PRT

<213> Homo sapiens

<400> 4920

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			20					25					30		
Phe	Val	Val	His	Thr	Val	Gln	Phe	Leu	Asn	Arg	Phe	Ser	Thr	Val	Cys
			35				40					45			
Glu	Glu	Lys	Leu	Ala	Asp	Leu	Ser	Leu	Arg	Ile	Gln	Gln	Ile	Glu	Thr
			50				55					60			
Thr	Leu	Asn	Ile	Leu	Asp	Ala	Lys	Leu	Ser	Ser	Ile	Pro	Gly	Leu	Asp
65					70					75				80	
Asp	Val	Thr	Val	Glu	Val	Ser	Pro	Leu	Asn	Val	Thr	Ser	Val	Thr	Asn
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Gly	Ala	His	Pro	Glu	Ala	Thr	Ser	Glu	Gln	Pro	Gln	Gln	Asn	Ser	Thr

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Gln Asp Ser Gly Leu Gln Glu Ser Glu Val Ser Ala Glu Asn Ile Leu					
115		120		125	
Thr Val Ala Lys Asp Pro Arg Tyr Ala Arg Tyr Leu Lys Met Val Gln					
130		135		140	
Val Gly Val Pro Val Met Ala Ile Arg Asn Lys Met Ile Ser Glu Gly					
145		150		155	160
Leu Asp Pro Asp Leu Leu Glu Arg Pro Asp Ala Pro Val Pro Asp Gly					
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<210> 4921

<211> 1272

<212> DNA

<213> Homo sapiens

<400> 4921

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<211> 342

<212> PRT

<213> Homo sapiens

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		20						25					30		
Val	Glu	Gln	Lys	Cys	Glu	Val	Phe	Asp	Asp	Glu	Glu	Glu	Ser	Lys	Leu
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Glu	Ala	Cys	Thr	Ser	Pro	Leu	Ala	Lys	Thr	His	Thr	Ser	Gln	Ala	Ile
				85					90					95	
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		100						105					110		
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		115					120					125			
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	130					135					140				
Val	Val	Ser	Asp	Leu	Glu	His	Glu	Glu	Met	Lys	Ile	Leu	Arg	Glu	Val
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Leu	Arg	Lys	Ser	Lys	Glu	Glu	Tyr	Asp	Gln	Glu	Glu	Glu	Arg	Lys	Arg
				165					170					175	
Lys	Lys	Gln	Leu	Ser	Glu	Ala	Lys	Thr	Glu	Glu	Pro	Thr	Val	His	Ser
			180					185					190		
Ser	Glu	Ala	Ala	Ile	Met	Asn	Asn	Ser	Gln	Gly	Asp	Gly	Glu	His	Phe
		195					200					205			
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225					230					235					240
Gln	Lys	Gly	Leu	Lys	Ile	Pro	Gly	Leu	Glu	His	Ala	Ser	Ile	Glu	Gly
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		260						265					270		
Glu	His	Tyr	Leu	Lys	Gln	Lys	Arg	Asp	Lys	Leu	Met	Ser	Met	Arg	Lys
	275						280					285			
Asp	Met	Arg	Thr	Lys	Gln	Ile	Gln	Asn	Met	Glu	Gln	Lys	Gly	Lys	Pro

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 <212> DNA
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 <212> PRT
 <213> Homo sapiens

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      20          25          30
Ser Ala Ser Arg Ser Ser Ser Ala Ser Lys Ser Ser Ser Ser Val Pro
      35          40          45
Ser Ser Ser Ser Ser Ser Gly Ser Leu Met His Arg Leu Ala Ile Phe

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50	55	60
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Ala Gly Gly Trp Pro Thr Lys Ala Lys Asn Ser Ala Ser Ser Ser		80
	85	90
Ser Ser Leu Ala Pro Ser Ser Gly Ile Ile Arg Pro Ser Gly Glu Arg		95
	100	105
Ser Thr Ser Arg Pro Ser Trp Arg Ala Ala Ala Pro Leu Pro Gly		110
	115	120
Gly Pro Gly Gly Pro Ser Ser Cys Ala Ser Ser Arg Leu Asp Ala Arg		125
	130	135
Thr Thr Cys Pro Gln Ala Arg Pro Cys Pro Ala Pro Ser Pro Gly Ser		140
145	150	155
Val Ala Ala His Ser Pro Phe Leu Ser Pro Ala Leu Leu Val Gly Ala		160
	165	170
Leu Arg Pro Val Asp Pro Glu Pro Ser Leu Pro Cys Leu Ala Val Pro		175
	180	185
Leu Pro Pro Arg Ala Ser Gly Ala Ala Pro Xaa Ser Ala Ala Ser		190
	195	200
Trp Ala Arg Arg Gly Leu Pro Ser Arg Asn Tyr Asn Ser Arg Gln Ile		205
	210	215
Ser Gln Gly Glu Asp Lys Met Thr Lys Arg Lys Lys Leu Arg Thr Ser		220
225	230	235
Ala Pro Leu Met Arg Lys Gln Asp Leu Pro Ala Gly Ser Ser Val		240
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<211> 374

<212> DNA

<213> Homo sapiens

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240

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374

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<211> 124

<212> PRT

<213> Homo sapiens

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		20					25					30			
Lys	Asp	Glu	Asp	Gly	Lys	Asp	Ser	Asp	Glu	Ala	Glu	Asp	Ala	Glu	
	35				40					45					
Leu	Tyr	Asp	Asp	Leu	Tyr	Cys	Pro	Ala	Cys	Asp	Lys	Ser	Phe	Lys	Thr
	50				55					60					
Glu	Lys	Ala	Met	Lys	Asn	His	Glu	Lys	Ser	Lys	Lys	His	Arg	Glu	Met
65				70					75					80	
Val	Ala	Leu	Leu	Lys	Gln	Gln	Leu	Glu	Glu	Glu	Glu	Asn	Phe	Ser	
			85					90				95			
Arg	Pro	Gln	Ile	Asp	Glu	Asn	Pro	Leu	Asp	Asp	Asn	Ser	Glu	Glu	Glu
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<210> 4927

<211> 1649

<212> DNA

<213> Homo sapiens

<400> 4927

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960

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<210> 4928

<211> 405

<212> PRT

<213> Homo sapiens

<400> 4928

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			20					25					30		
Ile	Gln	Leu	Ser	Gly	Ala	Glu	Gln	Leu	Glu	Ala	Leu	Lys	Ala	Phe	Val
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Glu	Ala	Met	Val	Asn	Glu	Asn	Val	Ser	Leu	Val	Ile	Ser	Arg	Gln	Leu
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Leu	Thr	Asp	Phe	Cys	Thr	His	Leu	Pro	Asn	Leu	Pro	Asp	Ser	Thr	Ala
65					70					75					80
Lys	Glu	Ile	Tyr	His	Phe	Thr	Leu	Glu	Lys	Ile	Gln	Pro	Arg	Val	Ile
			85						90					95	
Ser	Phe	Glu	Glu	Gln	Val	Ala	Ser	Ile	Arg	Gln	His	Leu	Ala	Ser	Ile
			100						105				110		
Tyr	Glu	Lys	Glu	Glu	Asp	Trp	Arg	Asn	Ala	Ala	Gln	Val	Leu	Val	Gly
		115					120					125			
Ile	Pro	Leu	Glu	Thr	Gly	Gln	Lys	Gln	Tyr	Asn	Val	Asp	Tyr	Lys	Leu
		130				135						140			
Glu	Thr	Tyr	Leu	Lys	Ile	Ala	Arg	Leu	Tyr	Leu	Glu	Asp	Asp	Asp	Pro
145				150						155					160
Val	Gln	Ala	Glu	Ala	Tyr	Ile	Asn	Arg	Ala	Ser	Leu	Leu	Gln	Asn	Glu
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<211> 5907

<212> DNA

<213> Homo sapiens

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<211> 648

<212> PRT

<213> Homo sapiens

<400> 4930

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Val	Gln	Gln	Phe	Gly	Tyr	Gln	Arg	Arg	Ala	Ser	Asp	Asp	Gly	Lys	Leu
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Cys	Leu	Met	Lys	Ala	Leu	Lys	Val	Arg	Gly	Leu	Gln	Pro	Glu	Cys	Cys
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Ala	Val	Phe	Arg	Leu	Leu	His	Glu	His	Lys	Gly	Lys	Lys	Ala	Arg	Leu
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 Lys Glu Glu Arg Pro Leu Phe Pro Gln Ile Leu Ser Ser Ile Glu Leu
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 <213> Homo sapiens

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<210> 4932
 <211> 87
 <212> PRT
 <213> Homo sapiens

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 Glu Asp Phe Asn Ile Tyr Gly His Gly Gly Arg Gln Phe Trp Leu Val
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<212> PRT

<213> Homo sapiens

<400> 4934

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Gly	Leu	Phe	Thr	Gln	Tyr	Asn	Ile	Gln	Lys	Lys	Ala	Met	Thr	Val	Gly
				85					90					95	
Glu	Tyr	Arg	Arg	Leu	Ala	Asn	Ser	Glu	Lys	Tyr	Cys	Thr	Pro	Arg	His
			100					105					110		
Gln	Asp	Phe	Asp	Asp	Leu	Glu	Arg	Lys	Tyr	Trp	Lys	Asn	Leu	Thr	Phe
		115					120					125			
Val	Ser	Pro	Ile	Tyr	Gly	Ala	Asp	Ile	Ser	Gly	Ser	Leu	Tyr	Asp	Asp
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Val	Ser	Met	Arg	Leu	Arg	Gly	Arg	Thr	Gly	Thr	Ser	Phe	Leu	Val	Gly
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<210> 4935

<211> 1668

<212> DNA

<213> Homo sapiens

<400> 4935

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<211> 337

<212> PRT

<213> Homo sapiens

<400> 4936

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Val	Ile	Ala	Arg	Gly	His	Gly	His	Lys	Ser	Trp	Val	Ser	Val	Val	Ala	65	70	75	80
Phe	Asp	Pro	Tyr	Thr	Thr	Ser	Val	Glu	Glu	Gly	Asp	Pro	Met	Glu	Phe	85	90	95	
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Ala	Ala	Pro	Ser	Val	Thr	Tyr	Arg	Phe	Gly	Ser	Val	Gly	Gln	Asp	Thr	130	135	140	
Gln	Leu	Cys	Leu	Trp	Asp	Leu	Thr	Glu	Asp	Ile	Leu	Phe	Pro	His	Gln	145	150	155	160
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Val	Pro	Pro	Pro	Leu	Pro	Arg	Ser	Asn	Ser	Leu	Pro	His	Ser	Ala	Val	195	200	205	
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His	His	Glu	Lys	Asp	His	Lys	Arg	Asn	His	Ser	Met	Gly	His	Ile	Ser	245	250	255	
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Pro	Ala	Lys	Thr	Leu	Gly	Thr	Pro	Leu	Cys	Pro	Arg	Met	Glu	Asp	Val	275	280	285	
Pro	Leu	Leu	Glu	Pro	Leu	Ile	Cys	Lys	Lys	Ile	Ala	His	Glu	Arg	Leu	290	295	300	
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			20					25					30			
Val	Ala	Glu	Pro	Trp	Pro	Thr	Arg	Ser	Gln	Gly	Gly	Arg	Gln	Pro	Gly	
		35					40					45				
Cys	Thr	Leu	Thr	Leu	Gly	Val	Cys	Ala	Asp	Gly	Arg	Trp	Glu	Glu	Thr	
	50					55					60					
Asp	Gln	Gln	Glu	Val	Phe	Ser	Ser	Gly	Val	Ala	Ser	Pro	Thr	Leu	Asn	
65					70					75					80	
Leu	Arg	Ala	Ser	Ser	Ser	Pro	Ala	Lys	Ala	Arg	Ala	Leu	Ser	Arg	Pro	

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 <212> DNA
 <213> Homo sapiens

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 <211> 158
 <212> PRT
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 Asp Ser Lys Ala Ser Thr Trp Leu Pro Leu Pro Val Thr Ser Ser Ser
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 Ala Glu Pro Ser Arg Pro Asn Ser Cys Pro Pro Ala Cys Ser Pro Ala
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Pro Pro Ile	Pro Ala Ala Thr	Glu Pro Val Cys Ala	Ser Ser Arg		
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Ser Gly Arg	Pro Thr Ala Thr	Ala Cys Ser Leu	Gln Pro Leu Leu Asp		
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<210> 4941

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<212> DNA

<213> Homo sapiens

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<210> 4942

<211> 469

<212> PRT

<213> Homo sapiens

<400> 4942

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			20					25					30		
Pro	Pro	Lys	Asp	Thr	Lys	Lys	Gly	Ala	Gln	Pro	Ser	Pro	Phe	Val	Pro
		35					40					45			
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	50					55				60					
Cys	Ser	Tyr	Glu	Thr	Thr	Phe	Leu	Glu	Asp	Gln	Gly	Gly	Trp	Glu	Leu
65					70					75				80	
Met	Glu	Gln	Val	Glu	Ser	His	His	Arg	Gly	Val	Ala	Leu	Leu	Ala	Arg
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Ala	Met	Val	Gln	Tyr	Ser	Cys	Gln	Glu	Leu	Cys	Arg	Ile	Leu	Tyr	Leu
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Thr	Ala	Phe	Phe	Val	Glu	Leu	Leu	Gln	Met	Glu	Gln	Val	Arg	Arg	Ile
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Arg	Arg	Ser	Glu	Lys	Thr	Ala	Lys	Val	Lys	Ala	Leu	Leu	Pro	Ser	Met
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210	215	220
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Asp Ala Arg Glu Val Val Arg Ser Ser Cys Ile Asn Leu Tyr Gly Lys		240
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Val Val Gln Lys Leu Arg Ala Pro Arg Thr Gln Ala Met Glu Glu Gln		255
	260	265
Leu Val Ser Thr Leu Val Pro Leu Leu Leu Thr Met Gln Glu Gly Asn		270
	275	280
Ser Lys Val Ser Gln Lys Cys Val Lys Thr Leu Leu Arg Cys Ser Tyr		285
	290	295
Phe Met Ala Trp Glu Leu Pro Lys Arg Ala Tyr Ser Arg Lys Pro Trp		300
305	310	315
Asp Asn Gln Gln Gln Thr Val Ala Lys Ile Cys Lys Cys Leu Val Asn		320
	325	330
Thr His Arg Asp Ser Ala Phe Ile Phe Leu Ser Gln Ser Leu Glu Tyr		335
	340	345
Ala Lys Asn Ser Arg Ala Ser Leu Arg Lys Cys Ser Val Met Phe Ile		350
	355	360
Gly Ser Leu Val Pro Cys Met Glu Ser Ile Met Thr Glu Asp Arg Leu		365
	370	375
Asn Glu Val Lys Ala Ala Leu Asp Asn Leu Arg His Asp Pro Glu Ala		380
385	390	395
Ser Val Cys Ile Tyr Ala Ala Gln Val Gln Asp His Ile Leu Ala Ser		400
	405	410
Cys Trp Gln Asn Ser Trp Leu Pro His Gly Asn Ser Trp Val Cys Tyr		415
	420	425
Ser Ala Thr Thr His Arg Trp Ser Pro Ser Cys Glu Asn Leu Pro Thr		430
	435	440
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<210> 4943

<211> 1020

<212> DNA

<213> Homo sapiens

<400> 4943

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<211> 106

<212> PRT

<213> Homo sapiens

<400> 4944

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Arg	Leu	Phe	Gly	Glu	Val	Thr	Arg	Pro	Thr	Asn	Ser	Lys	Ser	Met	Lys
			20					25					30		
Val	Val	Lys	Leu	Phe	Ser	Glu	Leu	Pro	Leu	Ala	Lys	Lys	Lys	Glu	Thr
		35					40					45			
Tyr	Asp	Trp	Tyr	Pro	Asn	His	His	Thr	Tyr	Ala	Glu	Leu	Met	Gln	Thr
	50					55					60				
Leu	Arg	Phe	Leu	Gly	Leu	Tyr	Arg	Asp	Glu	His	Gln	Asp	Phe	Met	Asp
65					70				75					80	
Glu	Gln	Lys	Arg	Leu	Lys	Lys	Leu	Arg	Gly	Lys	Glu	Lys	Pro	Lys	Lys
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Gly	Glu	Gly	Lys	Arg	Ala	Ala	Lys	Arg	Lys						
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<210> 4945

<211> 1792

<212> DNA

<213> Homo sapiens

<400> 4945

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<210> 4946
 <211> 197
 <212> PRT
 <213> Homo sapiens

<400> 4946
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 Pro Pro Gly Gln Glu Tyr Arg Met Tyr Asn Thr Tyr Asp Val His Phe
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 Tyr Ala Ser Phe Ala Leu Ile Met Leu Trp Pro Lys Leu Glu Leu Ser
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 Leu Gln Tyr Asp Met Ala Leu Ala Thr Leu Arg Glu Asp Leu Thr Arg
 65 70 75 80
 Arg Arg Tyr Leu Met Ser Gly Val Met Ala Pro Val Lys Arg Arg Asn
 85 90 95
 Val Ile Pro His Asp Ile Gly Asp Pro Asp Asp Glu Pro Trp Leu Arg
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 115 120 125
 Leu Lys Phe Val Leu Gln Val Tyr Arg Asp Tyr Tyr Leu Thr Gly Asp
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 Gln Asn Phe Leu Lys Asp Met Trp Pro Val Cys Leu Val Arg Asp Ala
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<210> 4947
 <211> 2060
 <212> DNA
 <213> Homo sapiens

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<210> 4948

<211> 127

<212> PRT

<213> Homo sapiens

<400> 4948

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			20				25						30		
Val	Asp	Asp	Met	Trp	His	Tyr	Ala	Gly	Asp	Gln	Ser	Thr	Asp	Phe	Asn
	35						40					45			
Trp	Tyr	Thr	Arg	Arg	Ala	Met	Leu	Ala	Ala	Ile	Tyr	Asn	Thr	Thr	Glu
	50					55					60				
Leu	Val	Met	Met	Gln	Asp	Ser	Ser	Pro	Asp	Phe	Glu	Asp	Thr	Trp	Arg
65				70						75				80	
Phe	Leu	Glu	Asn	Arg	Val	Asn	Asp	Ala	Met	Asn	Met	Gly	His	Thr	Ala
			85						90				95		
Lys	Gln	Val	Lys	Ser	Thr	Gly	Glu	Ala	Leu	Val	Gln	Gly	Leu	Met	Gly
			100					105					110		
Ala	Ala	Val	Thr	Leu	Lys	Asn	Leu	Thr	Xaa	Leu	Asn	Gln	Arg	Arg	
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<210> 4949

<211> 1259

<212> DNA

<213> Homo sapiens

<400> 4949

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660

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<210> 4950

<211> 318

<212> PRT

<213> Homo sapiens

<400> 4950

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Lys	Asn	Phe	Gly	Gly	Gly	Asn	Thr	Ala	Trp	Glu	Glu	Lys	Thr	Leu	Ser
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Glu	His	Leu	Glu	Ala	Trp	Trp	Leu	Gln	Leu	Lys	Ser	Glu	Tyr	Pro	Asp
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210	215	220
Ala Ala Gln Phe Cys Lys Asn Ala Asn Gly Ser Tyr Thr Cys Glu Glu		
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Cys Asp Ser Ser Cys Val Gly Cys Thr Gly Glu Gly Pro Gly Asn Cys		240
	245	250
Lys Glu Cys Ile Ser Gly Tyr Ala Arg Glu His Gly Gln Cys Ala Asp		255
	260	265
Val Asp Glu Cys Ser Leu Ala Glu Lys Thr Cys Val Arg Lys Asn Glu		270
	275	280
Asn Cys Tyr Asn Thr Pro Gly Ser Tyr Val Cys Val Cys Pro Asp Gly		285
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<210> 4951

<211> 1835

<212> DNA

<213> Homo sapiens

<400> 4951

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1020

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<210> 4952

<211> 318

<212> PRT

<213> Homo sapiens

<400> 4952

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Val	Pro	Arg	Ala	Phe	His	Ala	Ser	Ala	Val	Gly	Leu	Arg	Ser	Ser	Asp
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Glu	Gln	Lys	Gln	Gln	Pro	Pro	Asn	Ser	Phe	Ser	Gln	Gln	His	Ser	Glu
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Thr	Gln	Gly	Ala	Glu	Lys	Pro	Asp	Pro	Glu	Ser	Ser	His	Ser	Pro	Pro
65					70				75					80	
Arg	Tyr	Thr	Asp	Gln	Gly	Gly	Glu	Glu	Glu	Glu	Asp	Tyr	Glu	Ser	Glu
			85				90						95		
Glu	Gln	Leu	Gln	His	Arg	Ile	Leu	Thr	Ala	Ala	Leu	Glu	Phe	Val	Pro
			100				105					110			
Ala	His	Gly	Trp	Thr	Ala	Glu	Ala	Ile	Ala	Glu	Gly	Ala	Gln	Ser	Leu
		115				120					125				
Gly	Leu	Ser	Ser	Ala	Ala	Ala	Ser	Met	Phe	Gly	Arg	Met	Gly	Ser	Glu
	130					135					140				
Leu	Ile	Leu	His	Phe	Val	Thr	Gln	Cys	Asn	Thr	Arg	Leu	Thr	Arg	Val

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145          150          155          160
Leu Glu Glu Glu Gln Lys Leu Val Gln Leu Gly Gln Ala Glu Lys Arg
          165          170          175
Lys Thr Asp Gln Phe Leu Arg Asp Ala Val Glu Thr Arg Leu Arg Met
          180          185          190
Leu Ile Pro Tyr Ile Glu His Trp Pro Arg Ala Leu Ser Ile Leu Met
          195          200          205
Leu Pro His Asn Ile Pro Ser Ser Leu Ser Leu Leu Thr Ser Met Val
          210          215          220
Asp Asp Met Trp His Tyr Ala Gly Asp Gln Ser Thr Asp Phe Asn Trp
225          230          235          240
Tyr Thr Arg Arg Ala Met Leu Ala Ala Ile Tyr Asn Thr Thr Glu Leu
          245          250          255
Val Met Met Gln Asp Ser Ser Pro Asp Phe Glu Asp Thr Trp Arg Phe
          260          265          270
Leu Glu Asn Arg Val Asn Asp Ala Met Asn Met Gly His Thr Ala Lys
          275          280          285
Gln Val Lys Ser Thr Gly Glu Ala Leu Val Gln Gly Leu Met Gly Ala
          290          295          300
Ala Val Thr Leu Lys Asn Leu Thr Gly Leu Asn Gln Arg Arg
305          310          315

```

<210> 4953

<211> 355

<212> DNA

<213> Homo sapiens

<400> 4953

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120
ggtgccccct ggtggcagct tgaaggaagg acgggcagtg ggtcgcagcc agcggggacc
180
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240
tccgatttgg atagaccctc ttgggaccca ctgcaccagg gaaccccaaa tgcagctcag
300
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355

```

<210> 4954

<211> 114

<212> PRT

<213> Homo sapiens

<400> 4954

```

Met Ala Gly Gly Arg Gln Asp Arg Arg Ala Gln Ala Trp Thr Pro Leu
 1          5          10          15
Ser Ala Trp Gly Cys Leu Ala Ala Ser Pro Val Leu Gly Ala Gly Ile
          20          25          30
Thr Trp Pro Arg Val Pro Pro Gly Gly Ser Leu Lys Glu Gly Arg Ala
          35          40          45
Val Gly Arg Ser Gln Arg Gly Pro Thr Pro Gln Asn Ala His Lys Ser

```

```

      50              55              60
Trp Asn Gln Leu Val Thr Ala Ala Gly Pro Ser Arg Pro Ile Trp Ile
65              70              75              80
Asp Pro Leu Gly Thr His Cys Thr Arg Glu Pro Gln Met Gln Leu Ser
      85              90              95
Ser Met Gly Gly Ala Leu Ser Ala Gly Gly Val Trp Asp Arg Arg Arg
      100              105              110
Glu Ala

```

<210> 4955

<211> 364

<212> DNA

<213> Homo sapiens

<400> 4955

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120
agctcagcct gcccaggaac aactctgggc aagagatgtg gaaagaaaga gctcangggg
180
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240
caaggtggcc tctgagtgtg aaggcagggg gaagcagaca cctgcccctc actctccctc
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360
gggg
364

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<210> 4956

<211> 114

<212> PRT

<213> Homo sapiens

<400> 4956

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Met Gly Thr Glu His Leu Gly Leu Arg Pro Glu Glu Gln Thr Ala Arg
 1              5              10              15
Gln Gly Gly Arg Gly His Gln Pro Pro Pro Phe Cys Asp Ile Arg Thr
      20              25              30
Arg Ala Gln Pro Ala Gln Glu Gln Leu Trp Ala Arg Asp Val Glu Arg
      35              40              45
Lys Ser Ser Xaa Gly Gly Thr His Gly Ile Leu Gly Gly His Leu Arg
      50              55              60
Ala Pro Pro Pro Thr Ile Pro Pro Ser Lys Val Ala Ser Glu Cys Glu
65              70              75              80
Gly Arg Gly Lys Gln Thr Pro Ala Pro His Ser Pro Ser Leu Pro His
      85              90              95
Ser Tyr Arg Val Gly Gly Val Pro Gly Met Ile Pro Glu Gly Arg Ile
      100              105              110
Gln Gly

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<210> 4957
 <211> 872
 <212> DNA
 <213> Homo sapiens

<400> 4957
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 120
 tcttgacaag actgtacagg gcttctcacc atacacaaac cctccacagc ccacggctcc
 180
 aacccacagc acctcctgca gtcttgagg gaaaaggga agtaacatga agtgtctgaa
 240
 gatccatttc acctcttttc catgtgaacc atgacgcttt caatgcattt cttgacagga
 300
 ttctattttg aaagaatgat gctcaatctg taccttttat gcttcttggt tcttctccat
 360
 caataatatg tcagtcaact gcttgtcaga gacacttagc tgctgacagg tctcataac
 420
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 480
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 780
 gacacgcctt ccacgacgcg gaccgcgcga cgctccagct gactgcgcct acctgtggag
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<210> 4958
 <211> 51
 <212> PRT
 <213> Homo sapiens

<400> 4958
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 Pro Pro Pro Pro Ser Arg Ser Gly Ala Pro Pro Gln Pro Pro Ala Thr
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 Thr Ala Ile Ala Pro Gln Asp Thr Pro Ser Thr Thr Arg Thr Ala Arg
 35 40 45
 Arg Ser Ser
 50

<210> 4959
 <211> 449

<212> DNA

<213> Homo sapiens

<400> 4959

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120
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180
cggccaccgt aggatggagg ccagcttcca gccctggctg atgggggaga agcagcgaat
240
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449

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<210> 4960

<211> 115

<212> PRT

<213> Homo sapiens

<400> 4960

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1           5           10           15
Lys Val Lys Trp Arg Pro Ser Glu Ser Ser Lys Gly Leu Pro Tyr His
20          25          30
Ile Trp Arg Ile Arg Cys Phe Ser Pro Ile Ser Gln Gly Trp Lys Leu
35          40          45
Ala Ser Ile Leu Arg Trp Pro Glu Ala Leu Pro Leu Arg Gln Ile Met
50          55          60
Thr Pro Asp Ala Ser Ser Pro Leu Tyr Pro Cys His Met Glu Gly Pro
65          70          75          80
Lys His Leu Ala Leu Asn Cys Lys Trp Lys Pro Pro Gln Pro Leu His
85          90          95
Gln Pro Pro Ala Lys Glu Thr Thr Thr Thr Ile Cys Ile Pro Ser Leu
100         105         110
Asp Thr Arg
115

```

<210> 4961

<211> 4737

<212> DNA

<213> Homo sapiens

<400> 4961

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tcggccgccc tcacaccct caacgagagc ctgcagcccc tgggggacta tggcgtgggc
120

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tccaagaaca gcaagcgtgc ccgggagaag cgcgacagcc gcaacatgga agtacaggtc
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accaggaga tgcgcaacgt cagtataggc atgggcagca gtgacgagtg gtctgatgtt
240
caagacatta ttgactccac gccagagctg gacatgtgtc cagagacccg cctggaccgc
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<210> 4962

<211> 1069

<212> PRT

<213> Homo sapiens

<400> 4962

Ala Ala Ala Thr Pro Ser Thr Thr Gly Thr Lys Ser Asn Thr Pro Thr

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Ser Ser Val Pro	Ser Ala Ala Val	Thr Pro Leu Asn Glu	Ser Leu Gln
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Pro Leu Gly Asp Tyr Gly Val Gly Ser Lys Asn Ser Lys Arg Ala Arg			
35	40	45	
Glu Lys Arg Asp Ser Arg Asn Met Glu Val Gln Val Thr Gln Glu Met			
50	55	60	
Arg Asn Val Ser Ile Gly Met Gly Ser Ser Asp Glu Trp Ser Asp Val			
65	70	75	80
Gln Asp Ile Ile Asp Ser Thr Pro Glu Leu Asp Met Cys Pro Glu Thr			
85	90	95	
Arg Leu Asp Arg Thr Gly Ser Ser Pro Thr Gln Gly Ile Val Asn Lys			
100	105	110	
Ala Phe Gly Ile Asn Thr Asp Ser Leu Tyr His Glu Leu Ser Thr Ala			
115	120	125	
Gly Ser Glu Val Ile Gly Asp Val Asp Glu Gly Ala Asp Leu Leu Gly			
130	135	140	
Glu Phe Ser Gly Met Gly Lys Glu Val Gly Asn Leu Leu Glu Asn			
145	150	155	160
Ser Gln Leu Leu Glu Thr Lys Asn Ala Leu Asn Val Val Lys Asn Asp			
165	170	175	
Leu Ile Ala Lys Val Asp Gln Leu Ser Gly Glu Gln Glu Val Leu Arg			
180	185	190	
Gly Glu Leu Glu Ala Ala Lys Gln Ala Lys Val Lys Leu Glu Asn Arg			
195	200	205	
Ile Lys Glu Leu Glu Glu Glu Leu Lys Arg Val Lys Ser Glu Ala Ile			
210	215	220	
Ile Ala Arg Arg Glu Pro Lys Glu Glu Ala Glu Asp Val Ser Ser Tyr			
225	230	235	240
Leu Cys Thr Glu Ser Asp Lys Ile Pro Met Ala Gln Arg Arg Arg Phe			
245	250	255	
Thr Arg Val Glu Met Ala Arg Val Leu Met Glu Arg Asn Gln Tyr Lys			
260	265	270	
Glu Arg Leu Met Glu Leu Gln Glu Ala Val Arg Trp Thr Glu Met Ile			
275	280	285	
Arg Ala Ser Arg Glu His Pro Ser Val Gln Glu Lys Lys Lys Ser Thr			
290	295	300	
Ile Trp Gln Phe Phe Ser Arg Leu Phe Ser Ser Ser Ser Pro Pro			
305	310	315	320
Pro Ala Lys Arg Pro Tyr Pro Ser Val Asn Ile His Tyr Lys Ser Pro			
325	330	335	
Thr Thr Ala Gly Phe Ser Gln Arg Arg Asn His Ala Met Cys Pro Ile			
340	345	350	
Ser Ala Gly Ser Arg Pro Leu Glu Phe Phe Pro Asp Asp Asp Cys Thr			
355	360	365	
Ser Ser Ala Arg Arg Glu Gln Lys Arg Glu Gln Tyr Arg Gln Val Arg			
370	375	380	
Glu His Val Arg Asn Asp Asp Gly Arg Leu Gln Ala Cys Gly Trp Ser			
385	390	395	400
Leu Pro Ala Lys Tyr Lys Gln Leu Ser Pro Asn Gly Gly Gln Glu Asp			
405	410	415	
Thr Arg Met Lys Asn Val Pro Val Pro Val Tyr Cys Arg Pro Leu Val			
420	425	430	
Glu Lys Asp Pro Thr Met Lys Leu Trp Cys Ala Ala Gly Val Asn Leu			

		435					440					445				
Ser	Gly	Trp	Arg	Pro	Asn	Glu	Asp	Asp	Ala	Gly	Asn	Gly	Val	Lys	Pro	
	450					455					460					
Ala	Pro	Gly	Arg	Asp	Pro	Leu	Thr	Cys	Asp	Arg	Glu	Gly	Asp	Gly	Glu	
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Leu	Asp	Ser	Asp	Val	Asn	Pro	Glu	Asp	Pro	Gly	Ala	Asp	Gly	Val	Leu	
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Ala	Gly	Ile	Thr	Leu	Val	Gly	Cys	Ala	Thr	Arg	Cys	Asn	Val	Pro	Arg	
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	610					615					620					
Thr	Glu	Glu	Ala	Thr	Glu	Ala	Thr	Glu	Val	Pro	Asp	Pro	Gly	Pro	Ser	
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Glu	Pro	Glu	Thr	Ala	Thr	Leu	Arg	Pro	Gly	Pro	Leu	Thr	Glu	His	Val	
				645					650					655		
Phe	Thr	Asp	Pro	Ala	Pro	Thr	Pro	Ser	Ser	Gly	Pro	Gln	Pro	Gly	Ser	
			660					665					670			
Glu	Asn	Gly	Pro	Glu	Pro	Asp	Ser	Ser	Ser	Thr	Arg	Pro	Glu	Pro	Glu	
		675					680					685				
Pro	Ser	Gly	Asp	Pro	Thr	Gly	Ala	Gly	Ser	Ser	Ala	Ala	Pro	Thr	Met	
	690					695					700					
Trp	Leu	Gly	Ala	Gln	Asn	Gly	Trp	Leu	Tyr	Val	His	Ser	Ala	Val	Ala	
705					710					715					720	
Asn	Trp	Lys	Lys	Cys	Leu	His	Ser	Ile	Lys	Leu	Lys	Asp	Ser	Val	Leu	
				725					730					735		
Ser	Leu	Val	His	Val	Lys	Gly	Arg	Val	Leu	Val	Ala	Leu	Ala	Asp	Gly	
			740					745					750			
Thr	Leu	Ala	Ile	Phe	His	Arg	Gly	Glu	Asp	Gly	Gln	Trp	Asp	Leu	Ser	
		755					760					765				
Asn	Tyr	His	Leu	Met	Asp	Leu	Gly	His	Pro	His	His	Ser	Ile	Arg	Cys	
	770					775					780					
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785					790					79						

865		870		875		880									
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				885					890					895	
Gly	Val	Val	Ile	Ser	Ile	Pro	Leu	Thr	Glu	Thr	Val	Val	Leu	His	Arg
			900						905					910	
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		915						920					925		
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	930					935					940				
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945					950					955				960	
Ala	Gln	Leu	Cys	Phe	His	Gly	His	Arg	Asp	Ala	Val	Lys	Phe	Phe	Val
			965						970					975	
Ser	Val	Pro	Gly	Asn	Val	Leu	Ala	Thr	Leu	Asn	Gly	Ser	Val	Leu	Asp
		980						985					990		
Ser	Pro	Ala	Glu	Gly	Pro	Gly	Pro	Ala	Ala	Pro	Ala	Ser	Glu	Val	Glu
	995						1000					1005			
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Ile	Asp	Phe	Arg	Ile	Gly	Asp	Gly	Glu	Asp	Asp	Glu	Thr	Glu	Glu	Gly
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Ala	Gly	Asp	Met	Ser	Gln	Val	Lys	Pro	Val	Leu	Ser	Lys	Ala	Glu	Arg
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<210> 4963

<211> 1575

<212> DNA

<213> Homo sapiens

<400> 4963

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120
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180
gccatcccca aagccagctc ttctgagtct ctttcggcca aaacctgcag cttattttctg
240
cccaattacg ttcaggacaa gtatctgtta cagcttctaa gaaacgcaga tgacgtcagc
300
acctgggtgg ctgcagagat tgtgaccagc cacacctcca agctgcaggt gaacttgctg
360
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420
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480
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600
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660

gccacaggt ggagcaagct caggaacatc gcaaaggtgg tgagccaggt gcacgcgttc
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 1080
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 1380
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<210> 4964

<211> 304

<212> PRT

<213> Homo sapiens

<400> 4964

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Tyr	Phe	Leu	Thr	Glu	Tyr	Ser	Thr	His	Gln	Leu	Phe	Ser	Gln	Leu	Thr
			20					25					30		
Leu	Leu	Gln	Gln	Glu	Leu	Phe	Gln	Lys	Cys	His	Pro	Val	His	Phe	Leu
		35					40					45			
Asn	Ser	Arg	Ala	Leu	Gly	Val	Met	Asp	Lys	Ser	Thr	Ala	Ile	Pro	Lys
	50					55					60				
Ala	Ser	Ser	Ser	Glu	Ser	Leu	Ser	Ala	Lys	Thr	Cys	Ser	Leu	Phe	Leu
65				70						75				80	
Pro	Asn	Tyr	Val	Gln	Asp	Lys	Tyr	Leu	Leu	Gln	Leu	Leu	Arg	Asn	Ala
			85						90					95	
Asp	Asp	Val	Ser	Thr	Trp	Val	Ala	Ala	Glu	Ile	Val	Thr	Ser	His	Thr
		100						105					110		
Ser	Lys	Leu	Gln	Val	Asn	Leu	Leu	Ser	Lys	Phe	Xaa	Leu	Ile	Ala	Lys


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<210> 4965
<211> 1474
<212> DNA
<213> Homo sapiens
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4134

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 960
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 1380
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<210> 4966

<211> 212

<212> PRT

<213> Homo sapiens

<400> 4966

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		20					25					30			
Leu	Ile	Leu	Lys	Trp	Glu	Thr	Leu	Asn	Asp	Ala	Gly	Phe	Thr	Thr	Ala
	35					40					45				
Asn	Asn	Ile	Ala	Asn	Leu	Lys	Ile	Ser	Leu	Leu	Asn	Lys	Asp	Lys	Ile
	50				55					60					
Glu	Leu	Asp	Ser	Ser	Ser	Pro	Ala	Ser	Lys	Glu	Asn	Glu	Glu	Lys	Val
65				70					75					80	
Cys	Leu	Glu	Tyr	Asn	Glu	Glu	Leu	Glu	Lys	Leu	Cys	Glu	Glu	Leu	Gln
		85						90					95		
Ala	Thr	Leu	Asp	Gly	Leu	Thr	Lys	Ile	Gln	Val	Lys	Met	Glu	Lys	Leu
		100					105						110		
Ser	Ser	Thr	Thr	Lys	Gly	Ile	Cys	Glu	Leu	Glu	Asn	Tyr	His	Tyr	Gly
		115				120						125			
Glu	Glu	Ser	Lys	Arg	Pro	Pro	Leu	Phe	His	Thr	Trp	Pro	Thr	Thr	His
	130					135					140				
Phe	Tyr	Glu	Val	Ser	His	Lys	Leu	Leu	Glu	Met	Tyr	Arg	Lys	Glu	Leu
145				150					155					160	
Leu	Leu	Lys	Arg	Thr	Val	Ala	Lys	Glu	Leu	Ala	His	Thr	Gly	Asp	Pro

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                165                170                175
Asp Leu Thr Leu Ser Tyr Leu Ser Met Trp Leu His Gln Pro Tyr Val
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Glu Ser Asp Ser Arg Leu His Leu Glu Ser Met Leu Leu Glu Thr Gly
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His Arg Ala Leu
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<210> 4967
 <211> 550
 <212> DNA
 <213> Homo sapiens

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<400> 4967
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120
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taagacattt attctgagga gttggctcac atgagtaagg aggctgagaa gttccacaat
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300
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420
tcaggctctc agaggcttgg atgatgtcca ttcacattgg gcagggctag gtacttttct
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550

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<210> 4968
 <211> 51
 <212> PRT
 <213> Homo sapiens

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<400> 4968
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Tyr Ser Ser Leu Gln Pro Arg Thr Pro Gly Leu Lys Gln Ser Phe Arg
20          25          30
Leu Asp Leu Gln Asn Ser Trp Xaa Tyr Thr Arg Glu Pro Pro Cys Pro
35          40          45
Ala Ser Gln
50

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<210> 4969
 <211> 2911
 <212> DNA
 <213> Homo sapiens

<400> 4969

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120
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180
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240
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300
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360
ctaccagctc cctggcctcc ctgccccttg ggagcccctt cacactcttg tgcagggact
420
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480
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540
ggggcagggc cagcttccat cctttctcca gcccttgggg caactgagca atatacttaa
600
cctgaatctc tactcacagc ccccaccagc tctgaatgtc taacctgctc cctgattcg
660
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720
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780
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<210> 4970

<211> 155

<212> PRT

<213> Homo sapiens

<400> 4970

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		20						25					30		
Val	Ala	Leu	Asn	Met	Val	Leu	Pro	Asp	Glu	Lys	Gly	Ala	Gly	Ala	Leu
		35					40					45			
Pro	Phe	Leu	Pro	Gly	Val	Phe	Gly	Tyr	Ala	Val	Asn	Pro	Gln	Ala	Ala
	50					55					60				
Pro	Pro	Ala	Pro	Pro	Thr	Pro	Pro	Pro	Pro	Thr	Leu	Pro	Pro	Pro	Ile
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Pro	Pro	Lys	Gly	Glu	Gly	Glu	Arg	Ala	Gly	Val	Glu	Arg	Thr	Gln	Lys
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Gly	Asp	Val	Gly	Xaa	Asn	Pro	Gly	Ala	Gln	Ser	Pro	Phe	His	Gln	Met
		100						105					110		
Pro	Pro	Ser	Leu	Asn	Pro	Pro	Pro	Leu	Pro	Ala	Pro	Trp	Pro	Pro	Cys
		115					120					125			
Pro	Leu	Gly	Ala	Pro	Ser	His	Ser	Cys	Ala	Gly	Thr	Trp	Gly	Pro	Leu
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<210> 4971

<211> 2939

<212> DNA

<213> Homo sapiens

<400> 4971

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840

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<211> 558

<212> PRT

<213> Homo sapiens

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<211> 3555

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<213> Homo sapiens

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<213> Homo sapiens

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Asp	Arg	Lys	Arg	Thr	Trp	Leu	Gly	Leu	Leu	Glu	Glu	Ala	Tyr	Thr	Leu
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<212> DNA

<213> Homo sapiens

<400> 4977

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<210> 4978

<211> 792

<212> PRT

<213> Homo sapiens

<400> 4978

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			20					25					30		
Glu	Thr	Thr	Thr	Ser	Thr	Ile	Ile	Thr	Thr	Thr	Val	Ile	Thr	Thr	Glu
			35				40					45			
Gln	Ala	Pro	Ala	Leu	Cys	Ser	Val	Ser	Phe	Ser	Asn	Pro	Glu	Gly	Tyr
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Ile	Asp	Ser	Ser	Asp	Tyr	Pro	Leu	Leu	Pro	Leu	Asn	Asn	Phe	Leu	Glu
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Cys	Thr	Tyr	Asn	Val	Thr	Val	Tyr	Thr	Gly	Tyr	Gly	Val	Glu	Leu	Gln
			85					90					95		
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			100					105					110		
Val	Asp	Gly	Pro	Thr	Leu	Thr	Val	Leu	Ala	Asn	Gln	Thr	Leu	Leu	Val

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 Glu Gly Gln Val Ile Arg Ser Pro Thr Asn Thr Ile Ser Val Tyr Phe
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 Arg Thr Phe Gln Asp Asp Gly Leu Gly Thr Phe Gln Leu His Tyr Gln
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 Ala Phe Met Leu Ser Cys Asn Phe Pro Arg Arg Pro Asp Ser Gly Asp
 165 170 175
 Val Thr Val Met Asp Leu His Ser Gly Gly Val Ala His Phe His Cys
 180 185 190
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 Cys Gly Gly Ala Val His Asn Ala Thr Ile Gly Arg Val Leu Ser Pro
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 Trp Pro Glu Pro Tyr Val Glu Gly Glu Asp Cys Ile Trp Lys Ile His
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 Val Gly Glu Glu Lys Arg Ile Phe Leu Asp Ile Gln Phe Leu Asn Leu
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 Ser Asn Ser Asp Ile Leu Thr Ile Tyr Asp Gly Asp Glu Val Met Pro
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 His Ile Leu Gly Gln Tyr Leu Gly Asn Ser Gly Pro Gln Lys Leu Tyr
 465 470 475 480
 Ser Ser Thr Pro Asp Leu Thr Ile Gln Phe His Ser Asp Pro Ala Gly
 485 490 495
 Leu Ile Phe Gly Lys Gly Gln Gly Phe Ile Met Asn Tyr Ile Glu Val
 500 505 510
 Ser Arg Asn Asp Ser Cys Ser Asp Leu Pro Glu Ile Gln Asn Gly Trp
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<210> 4979
<211> 1865
<212> DNA
<213> Homo sapiens
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<211> 266

<212> PRT

<213> Homo sapiens

<400> 4980

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 35 40 45
 Val Gly Pro Pro Phe Leu Met Asp Glu Asn Ser Trp Phe Asn Lys Cys
 50 55 60
 Lys Arg Val Lys Gln Lys Tyr Gln Leu Thr Leu Glu Gln Lys Gly Tyr
 65 70 75 80
 Leu Glu Glu Leu Leu Arg Leu Arg Glu Asn Gln Leu Ser Glu Ser Val
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 Ser Gln Asn Lys Ile Leu Leu Gln Arg Ile Glu Asp Ser Asp Leu Ala
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 His Lys Leu Glu Lys Glu Gln Leu Glu Tyr Ile Ile Val Glu Leu Gln
 115 120 125
 Asp Gln Leu Thr Val Leu Lys Asn Asn Asp Leu Arg Ser Arg Gln Glu
 130 135 140
 Leu Thr Ala His Leu Thr Asn Gln Trp Pro Ser Pro Gly Ala Leu Asp
 145 150 155 160
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 165 170 175
 Gln Trp Lys Ser Tyr Gln Ser Leu Asp Gln Leu Ser Ala Glu Val Ser
 180 185 190
 Leu Ser Gln Thr Ser Leu Asp Pro Gly Gln Ser Gln Glu Gly Asp Gly
 195 200 205
 Lys Gln Asp Thr Leu Asn Val Met Ser Glu Gly Lys Glu Asp Thr Pro
 210 215 220
 Ser Leu Leu Gly Leu Cys Gly Ser Leu Thr Ser Val Ala Ser Tyr Lys
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<210> 4981

<211> 1902

<212> DNA

<213> Homo sapiens

<400> 4981

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<210> 4982

<211> 73
 <212> PRT
 <213> Homo sapiens

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 35 40 45
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 Phe Ser Arg Asp Gly Val Ser Pro Cys
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<210> 4983
 <211> 1418
 <212> DNA
 <213> Homo sapiens

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<210> 4984

<211> 256

<212> PRT

<213> Homo sapiens

<400> 4984

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			20					25					30		
Gly	Ser	Phe	Leu	Ala	Arg	Ala	Lys	Phe	Ile	Pro	Leu	Ile	Thr	Val	Lys
		35					40					45			
Ser	Cys	Leu	Asp	Leu	Leu	Val	Asn	Trp	Leu	His	Ile	Tyr	Leu	Asn	Asn
	50					55					60				
Gln	Asp	Ser	Gly	Thr	Lys	Ala	Phe	Cys	Asp	Val	Ala	Leu	His	Gly	Pro
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Phe	Tyr	Ser	Ala	Cys	Gln	Ala	Val	Phe	Tyr	Thr	Phe	Val	Phe	Arg	His
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Lys	Gln	Leu	Leu	Ser	Gly	Asn	Leu	Lys	Glu	Gly	Leu	Gln	Tyr	Leu	Gln
		100						105					110		
Ser	Leu	Asn	Phe	Glu	Arg	Ile	Val	Met	Ser	Gln	Leu	Asn	Pro	Leu	Lys
		115					120					125			
Ile	Cys	Leu	Pro	Ser	Val	Val	Asn	Phe	Phe	Ala	Ala	Ile	Thr	Asn	Lys
	130					135				140					
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Cys	Thr	Asn	Pro	Leu	Asp	Thr	Phe	Phe	Pro	Phe	Asp	Pro	Cys	Val	Leu
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Ile	Val	Glu	Asp	Glu	Asp	Asp	Asp	Phe	Leu	Lys	Gly	Glu	Ile	Pro	Gln
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250

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<211> 5695
<212> DNA
<213> Homo sapiens

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<210> 4986

<211> 1239

<212> PRT

<213> Homo sapiens

<400> 4986

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Lys	Ile	Phe	Leu	Pro	Lys	Lys	Leu	Leu	Glu	Cys	Leu	Pro	Arg	Cys	Pro
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4161

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Val	Val	Val	Leu	Val	Glu	Ser	Met	Ile	Pro	Arg	Ser	Thr	Trp	Lys	Gly
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Pro	Glu	Arg	Leu	Ala	His	Gly	Ser	Pro	Phe	Arg	Gly	Met	Ser	Leu	Leu
			740					745					750		
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Cys	Ala	Leu	Gly	His	Leu	Glu	Ala	Ala	Val	Leu	Leu	Phe	Arg	Trp	Asn
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Val	Ala	His	Ser	Arg	Gly	His	Val	Arg	Leu	Ala	Arg	Cys	Leu	Glu	Glu
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Leu	Gln	Arg	Gln	Glu	Pro	Ser	Val	Glu	Pro	Pro	Phe	Ala	Leu	Ser	Pro
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Glu	Leu	Ser	Asp	Gly	Thr	Phe	Ser	Val	Thr	Ser	Ala	Tyr	Ser	Ser	Ala
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			900					905					910		
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 965 970 975
 Ile Ser Leu Ala Lys Gln Ile Ile Glu Ala Thr Pro Glu Arg Ile Lys
 980 985 990
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 995 1000 1005
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<210> 4987

<211> 357

<212> DNA

<213> Homo sapiens

<400> 4987

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<210> 4988
<211> 105
<212> PRT
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<400> 4988
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Pro Leu Glu Ala Lys Gly Leu Ala Thr Gln Gly Ala Ser Leu Pro Leu
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Leu Pro Thr Val Thr Cys Val Ser Ile Lys Ser Trp Lys Met Glu Cys
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<212> PRT

<213> Homo sapiens

<400> 4990

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			20					25					30		
Glu	Gln	Ala	Ser	Phe	Leu	Ala	Ser	Ser	Phe	Ser	Ser	Ser	Ala	Gly	Pro
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<210> 4991

<211> 828

<212> DNA

<213> Homo sapiens

<400> 4991

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<210> 4992

<211> 69

<212> PRT

<213> Homo sapiens

<400> 4992

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 Glu Leu Arg Asp Lys Tyr Leu Glu Glu Lys Glu Asp Leu Glu Leu Lys
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 Cys Ser Thr Leu Gly Lys Asp Cys Glu Met Tyr Lys His Arg Met Asn
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<210> 4993

<211> 837

<212> DNA

<213> Homo sapiens

<400> 4993

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<210> 4994

<211> 133

<212> PRT

<213> Homo sapiens

<400> 4994

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			20					25					30		
Glu	Glu	Asp	Ser	Asp	Gly	Glu	Leu	Asn	Thr	Trp	Glu	Leu	Ser	Glu	Gly
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Thr	Asn	Cys	Pro	Pro	Lys	Glu	Gln	Pro	Gly	Asp	Leu	Phe	Asn	Glu	Asp
	50					55				60					
Trp	Asp	Ser	Glu	Leu	Lys	Ala	Asp	Gln	Gly	Asn	Pro	Tyr	Asp	Ala	Asp
65					70				75					80	
Asp	Ile	Gln	Glu	Ser	Ile	Ser	Gln	Glu	Leu	Lys	Pro	Trp	Val	Cys	Cys
			85					90						95	
Ala	Pro	Gln	Gly	Asp	Met	Ile	Tyr	Asp	Pro	Ser	Trp	His	His	Pro	Pro
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Pro	Leu	Ile	Pro	Tyr	Tyr	Ser	Lys	Met	Val	Phe	Glu	Thr	Gly	Gln	Phe
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<210> 4995

<211> 1595

<212> DNA

<213> Homo sapiens

<400> 4995

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 Phe Arg Leu Asp Thr Pro Leu Tyr Phe Ser Tyr Ser His Leu Val Cys
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 Pro Val His Val Asp Asn Cys Ile Leu Asn Ala Glu Thr Leu Val Cys
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 Val Lys Glu Pro Pro Ala Tyr Thr Phe Arg Asp Tyr Ser Ala Ile Leu
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<210> 4997
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<210> 4998
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 Cys Pro Glu Glu Gln Pro His Val Gly Asn Tyr Arg Leu Leu Arg Thr
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 Ile Gly Lys Gly Asn Phe Ala Lys Val Lys Leu Ala Arg His Ile Leu
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 Thr Gly Arg Glu Val Ala Ile Lys Ile Ile Asp Lys Thr Gln Leu Asn
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 Pro Ser Ser Leu Gln Lys Leu Phe Arg Glu Val Arg Ile Met Lys Gly
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 115 120 125
 Lys Thr Leu Tyr Leu Val Met Glu Tyr Ala Ser Ala Gly Glu Pro Pro
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 Thr Leu Ser Ala Leu Pro Leu Cys His Leu Pro Leu Pro Leu His Leu
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 Thr Leu Thr Pro Leu Gly Leu Cys Pro Ala Gly Glu Val Phe Asp Tyr
 165 170 175
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 180 185 190
 Arg Gln Ile Val Ser Ala Val His Tyr Cys His Gln Lys Asn Ile Val
 195 200 205
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 275 280 285
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<212> DNA
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<211> 307

<212> PRT

<213> Homo sapiens

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<211> 3427
<212> DNA
<213> Homo sapiens
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<212> PRT

<213> Homo sapiens

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			20					25					30		
Ile	Val	Leu	Ile	Val	Glu	Gly	Thr	Glu	Phe	Pro	Cys	His	Lys	Met	Val
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Leu	Ala	Thr	Cys	Ser	Ser	Tyr	Phe	Arg	Ala	Met	Phe	Met	Ser	Gly	Leu
	50					55				60					
Ser	Glu	Ser	Lys	Gln	Thr	His	Val	His	Leu	Arg	Asn	Val	Asp	Ala	Ala
65				70					75					80	
Thr	Leu	Gln	Ile	Ile	Ile	Thr	Tyr	Ala	Tyr	Thr	Gly	Asn	Leu	Ala	Met
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Asn	Asp	Ser	Thr	Val	Glu	Gln	Leu	Tyr	Glu	Thr	Ala	Cys	Phe	Leu	Gln
			100					105					110		
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<212> DNA
<213> Homo sapiens
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<210> 5004

<211> 642

<212> PRT

<213> Homo sapiens

<400> 5004

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Ser Gly Glu Lys Leu Lys Val Val Asn Glu Arg Ala Thr Leu Phe Arg
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Ile Thr Ser Asn Ala Met Ile Asn Ala Cys Arg Asp Phe Leu Glu Leu
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Glu Gln Arg Val His Leu Glu Glu Thr Ile Glu Gln Leu Ala Lys Gln
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Arg Lys Ala Glu Gly Ser Thr Gly Thr Ser Ser Val Asp Trp Ser Ser
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<211> 1120

<212> DNA

<213> Homo sapiens

<400> 5005

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<211> 165

<212> PRT

<213> Homo sapiens

<400> 5006

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Val	Asn	Val	Arg	Trp	Leu	Leu	Cys	Gly	Cys	Leu	Cys	Cys	Cys	Cys	Thr
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Lys	Leu	Cys	Leu	His	Trp	Arg	Leu	Ser	Lys	Arg	Lys	Cys	Glu	Thr	Asn
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<212> DNA
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<212> PRT

<213> Homo sapiens

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Ser	Met	Ala	Lys	Ile	His	Ala	Arg	Asn	Gly	Asp	Leu	Ser	Glu	Ala	Ala
		35					40					45			
Met	Cys	Tyr	Ile	His	Ile	Ala	Ala	Leu	Ile	Ala	Glu	Tyr	Leu	Lys	Arg
	50					55				60					
Lys	Gly	Met	Phe	Ser	Met	Gly	Trp	Pro	Ala	Val	Leu	Ser	Ile	Thr	Pro
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Asn	Ile	Lys	Glu	Glu	Gly	Ala	Met	Lys	Glu	Asp	Ser	Gly	Met	Gln	Asp
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Ser	Asp	Leu	Tyr	Tyr	Asp	Ile	His	Arg	Ser	Tyr	Leu	Lys	Val	Ala	Glu
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 385 390 395 400
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 405 410 415
 Gln Leu Glu Tyr Gln Glu Glu Leu Arg Ser His Tyr Lys Asp Met Leu
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 Ser Glu Leu Ser Thr Val Met Asn Glu Gln Leu Cys Arg Gly Pro Cys
 435 440 445
 Leu Tyr Ser Phe Cys Ser Ser Val Ser Ser Ile Ser Leu Ser Thr Val
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<212> DNA

<213> Homo sapiens

<400> 5009

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<213> Homo sapiens

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			20					25					30		
Asn	Leu	Pro	Gly	Arg	Val	His	Gln	Phe	Phe	Ile	Ser	Pro	Leu	Phe	Ile
		35					40					45			
Leu	Ser	Phe	Glu	Val	Ile	Leu	Ile	His	Phe	Leu	His	Leu	Gln	Pro	Pro
	50					55					60				
Val	Leu	Leu	Asp	Leu	Ala	Pro	Asn	Leu	Leu	Leu	Pro	Phe	Gly	Thr	Glu
65					70					75				80	
Glu	Lys	Leu	Leu	Ser	Pro	Cys	Phe	Ala	Asp	Ile	Ser	Lys	Gly	Lys	
				85				90					95		
Glu	Ser	Thr	Gly	Pro	Phe	Ile	Ser	Cys	Pro	Arg	Pro	Ser	Gln	Gly	Ala
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<212> DNA

<213> Homo sapiens

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<211> 950

<212> PRT

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<400> 5012

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Met Gly Val Pro Ala Phe Phe Arg Trp Leu Ser Arg Lys Tyr Pro Ser
 1           5           10           15
Ile Ile Val Asn Cys Val Glu Glu Lys Pro Lys Glu Cys Asn Gly Val
 20           25           30
Lys Ile Pro Val Asp Ala Ser Lys Pro Asn Pro Asn Asp Val Glu Phe
 35           40           45
Asp Asn Leu Tyr Leu Asp Met Asn Gly Ile Ile His Pro Cys Thr His
 50           55           60
Pro Glu Asp Lys Pro Ala Pro Lys Asn Glu Asp Glu Met Met Val Ala
 65           70           75           80
Ile Phe Glu Tyr Ile Asp Arg Leu Phe Ser Ile Val Arg Pro Arg Arg
 85           90           95
Leu Leu Tyr Met Ala Ile Asp Gly Val Ala Pro Arg Val Lys Met Asn
 100          105          110
Gln Gln Arg Ser Arg Arg Phe Arg Ala Ile Lys Glu Gly Met Glu Ala
 115          120          125
Ala Val Glu Lys Gln Arg Val Arg Glu Glu Ile Leu Ala Lys Gly Gly
 130          135          140
Phe Leu Pro Pro Glu Glu Ile Lys Glu Arg Phe Asp Ser Asn Cys Ile
 145          150          155          160
Thr Pro Gly Thr Glu Phe Met Asp Asn Leu Ala Lys Cys Leu Arg Tyr
 165          170          175
Tyr Ile Ala Asp Arg Leu Asn Asn Asp Pro Gly Trp Lys Asn Leu Thr
 180          185          190
Val Ile Leu Ser Asp Ala Ser Ala Pro Gly Glu Gly Glu His Lys Ile
 195          200          205
Met Asp Tyr Ile Arg Arg Gln Arg Ala Gln Pro Asn His Asp Pro Asn
 210          215          220
Thr His His Cys Leu Cys Gly Ala Asp Ala Asp Leu Ile Met Leu Gly
 225          230          235          240
Leu Ala Thr His Glu Pro Asn Phe Thr Ile Arg Glu Glu Phe Lys
 245          250          255
Pro Asn Lys Pro Lys Pro Cys Gly Leu Cys Asn Gln Phe Gly His Glu
 260          265          270
Val Lys Asp Cys Glu Gly Leu Pro Arg Glu Lys Lys Gly Lys His Asp
 275          280          285
Glu Leu Ala Asp Ser Leu Pro Cys Ala Glu Gly Glu Phe Ile Phe Leu
 290          295          300
Arg Leu Asn Val Leu Arg Glu Tyr Leu Glu Arg Glu Leu Thr Met Ala
 305          310          315          320
Ser Leu Pro Phe Thr Phe Asp Val Glu Arg Ser Ile Asp Asp Trp Val
 325          330          335
Phe Met Cys Phe Phe Val Gly Asn Asp Phe Leu Pro His Leu Pro Ser
 340          345          350
Leu Glu Ile Arg Glu Asn Ala Ile Asp Arg Leu Val Asn Ile Tyr Lys
 355          360          365
Asn Val Val His Lys Thr Gly Gly Tyr Leu Thr Glu Ser Gly Tyr Val
 370          375          380
Asn Leu Gln Arg Val Gln Met Ile Met Leu Ala Val Gly Glu Val Glu
 385          390          395          400
Asp Ser Ile Phe Lys Lys Arg Lys Asp Asp Glu Asp Ser Phe Arg Arg
 405          410          415
Arg Gln Lys Glu Lys Arg Lys Arg Met Lys Arg Asp Gln Pro Ala Phe

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4190

850		855		860											
Pro	Gln	Asp	Ser	Trp	Arg	Gly	Pro	Pro	Pro	Leu	Phe	Gln	Gln	Gln	Arg
865					870					875					880
Phe	Asp	Arg	Gly	Val	Gly	Ala	Glu	Pro	Leu	Leu	Pro	Trp	Asn	Arg	Met
					885					890					895
Leu	Gln	Thr	Gln	Asn	Ala	Ala	Phe	Gln	Pro	Asn	Gln	Tyr	Gln	Met	Leu
					900					905					910
Ala	Gly	Pro	Gly	Gly	Tyr	Pro	Pro	Arg	Arg	Asp	Asp	Arg	Gly	Gly	Arg
					915					920					925
Gln	Gly	Tyr	Pro	Arg	Glu	Gly	Arg	Lys	Tyr	Pro	Leu	Pro	Pro	Pro	Ser
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Gly	Arg	Tyr	Asn	Trp	Asn										
945					950										

<210> 5013

<211> 2480

<212> DNA

<213> Homo sapiens

<400> 5013

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780
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900
tatgagcatg ggcgcttctg gcctttctct cgagagtcag atgcagacgc agtggggcgg
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1020

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1140
gccacgccag agtgcttcgc ccacctcaca cagctgctgc aggtgctggc cggcggccgg
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2280
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2340
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2480

<210> 5014

<211> 675

<212> PRT

<213> Homo sapiens

<400> 5014

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Arg Gly Arg Leu Gly Thr Gln Gly Asp His Gly Ala Ala Met Gly Thr
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Ala Leu Val Tyr His Glu Asp Met Thr Ala Thr Arg Leu Leu Trp Asp
          20           25           30
Asp Pro Glu Cys Glu Ile Glu Arg Pro Glu Arg Leu Thr Ala Ala Leu
          35           40           45
Asp Arg Leu Arg Gln Arg Gly Leu Glu Gln Arg Cys Leu Arg Leu Ser
          50           55           60
Ala Arg Glu Ala Ser Glu Glu Glu Leu Gly Leu Val His Ser Pro Glu
65           70           75           80
Tyr Val Ser Leu Val Arg Glu Thr Gln Val Leu Gly Lys Glu Glu Leu
          85           90           95
Gln Ala Leu Ser Gly Gln Phe Asp Ala Ile Tyr Phe His Pro Ser Thr
          100          105          110
Phe His Cys Ala Arg Leu Ala Ala Gly Ala Gly Leu Gln Leu Val Asp
          115          120          125
Ala Val Leu Thr Gly Ala Val Gln Asn Gly Leu Ala Leu Val Arg Pro
          130          135          140
Pro Gly His His Gly Gln Arg Ala Ala Ala Asn Gly Phe Cys Val Phe
145          150          155          160
Asn Asn Val Ala Ile Ala Ala Ala His Ala Lys Gln Lys His Gly Leu
          165          170          175
His Arg Ile Leu Val Val Asp Trp Asp Val His His Gly Gln Gly Ile
          180          185          190
Gln Tyr Leu Phe Glu Asp Asp Pro Ser Val Leu Tyr Phe Ser Trp His
          195          200          205
Arg Tyr Glu His Gly Arg Phe Trp Pro Phe Leu Arg Glu Ser Asp Ala
          210          215          220
Asp Ala Val Gly Arg Gly Gln Gly Leu Gly Phe Thr Val Asn Leu Pro
225          230          235          240
Trp Asn Gln Val Gly Met Gly Asn Ala Asp Tyr Val Ala Ala Phe Leu
          245          250          255
His Leu Leu Leu Pro Leu Ala Phe Glu Phe Asp Pro Glu Leu Val Leu
          260          265          270
Val Ser Ala Gly Phe Asp Ser Ala Ile Gly Asp Pro Glu Gly Gln Met
          275          280          285
Gln Ala Thr Pro Glu Cys Phe Ala His Leu Thr Gln Leu Leu Gln Val
          290          295          300
Leu Ala Gly Gly Arg Val Cys Ala Val Leu Glu Gly Gly Tyr His Leu
305          310          315          320
Glu Ser Leu Ala Glu Ser Val Cys Met Thr Val Gln Thr Leu Leu Gly
          325          330          335
Asp Pro Ala Pro Pro Leu Ser Gly Pro Met Ala Pro Cys Gln Arg Cys
          340          345          350
Glu Gly Ser Ala Leu Glu Ser Ile Gln Ser Ala Arg Ala Ala Gln Ala
          355          360          365
Pro His Trp Lys Ser Leu Gln Gln Gln Asp Val Thr Ala Val Pro Met
          370          375          380
Ser Pro Ser Ser His Ser Pro Glu Gly Arg Pro Pro Pro Leu Leu Pro
385          390          395          400
Gly Gly Pro Val Cys Lys Ala Ala Ala Ser Ala Pro Ser Ser Leu Leu

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405 410 415
 Asp Gln Pro Cys Leu Cys Pro Ala Pro Ser Val Arg Thr Ala Val Ala
 420 425 430
 Leu Thr Thr Pro Asp Ile Thr Leu Val Leu Pro Pro Asp Val Ile Gln
 435 440 445
 Gln Glu Ala Ser Ala Leu Arg Glu Glu Thr Glu Ala Trp Ala Arg Pro
 450 455 460
 His Glu Ser Leu Ala Arg Glu Glu Ala Leu Thr Ala Leu Gly Lys Leu
 465 470 475 480
 Leu Tyr Leu Leu Asp Gly Met Leu Asp Gly Gln Val Asn Ser Gly Ile
 485 490 495
 Ala Ala Thr Pro Ala Ser Ala Ala Ala Thr Leu Asp Val Ala Val
 500 505 510
 Arg Arg Gly Leu Ser His Gly Ala Gln Arg Leu Leu Cys Val Ala Leu
 515 520 525
 Gly Gln Leu Asp Arg Pro Pro Asp Leu Ala His Asp Gly Arg Ser Leu
 530 535 540
 Trp Leu Asn Ile Arg Gly Lys Glu Ala Ala Ala Leu Ser Met Phe His
 545 550 555 560
 Val Ser Thr Pro Leu Pro Val Met Thr Gly Gly Phe Leu Ser Cys Ile
 565 570 575
 Leu Gly Leu Val Leu Pro Leu Ala Tyr Gly Phe Gln Pro Asp Leu Val
 580 585 590
 Leu Val Ala Leu Gly Pro Gly His Gly Leu Gln Gly Pro His Ala Ala
 595 600 605
 Leu Leu Ala Ala Met Leu Arg Gly Leu Ala Gly Gly Arg Val Leu Ala
 610 615 620
 Leu Leu Glu Glu Val Ser Trp Ala Gly Trp Arg Cys Cys Gly Val Gly
 625 630 635 640
 Arg Gly Glu Gly Pro Val Thr Ala Ser Val Phe Ala Pro Gly Pro Glu
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 Leu His Thr Pro Ala Ser Arg Asp Pro Gly Pro Gly Ala Glu Trp Arg
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 Gly Thr Ser
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<210> 5015

<211> 1360

<212> DNA

<213> Homo sapiens

<400> 5015

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 180
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 300
 tccgagcact tccggccaga gtgcttcagc gcctttggaa accgcaagaa cctaaagcac
 360

aatgccgtgc ccacggtgtt cgcctttcag gacccacac agcaggtgag ggagaacaca
 420
 gaccctgcc a gtgagagagg aaatgccagc tcttctcaga aagaaaaggt cctccctgag
 480
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 540
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<210> 5016

<211> 284

<212> PRT

<213> Homo sapiens

<400> 5016

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Pro	Arg	Pro	Ser	Pro	Gln	Val	Pro	Pro	Leu	Ser	Ala	Gly	Pro	Ala	Ala
			20					25					30		
Ala	Ala	Ile	Phe	Val	Gly	Gly	Ser	Gln	Ala	Trp	Leu	Glu	Met	Pro	Lys
		35				40					45				
Ser	Cys	Ala	Ala	Arg	Gln	Cys	Cys	Asn	Arg	Tyr	Ser	Ser	Arg	Arg	Lys
	50					55				60					
Gln	Leu	Thr	Phe	His	Arg	Phe	Pro	Phe	Ser	Arg	Pro	Glu	Leu	Leu	Lys
65					70				75					80	
Glu	Trp	Val	Leu	Asn	Ile	Gly	Arg	Gly	Asn	Phe	Lys	Pro	Lys	Gln	His
			85					90						95	
Thr	Val	Ile	Cys	Ser	Glu	His	Phe	Arg	Pro	Glu	Cys	Phe	Ser	Ala	Phe

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<210> 5017
<211> 785
<212> DNA
<213> Homo sapiens
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120
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660
caccctgccc cacacctgcc cctaatact gcagtgtcca gccagtggt gaacagattg
720

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 aaaaaa
 785

<210> 5018
 <211> 63
 <212> PRT
 <213> Homo sapiens

<400> 5018
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 Leu Pro Ala Leu Pro Ser Asp Ala Gly Val Gly Trp Gly Ala Glu Gly
 35 40 45
 Pro Pro Ser Ile Ala Ala Val Ser Gln Ser His Gly Arg Arg Ser
 50 55 60

<210> 5019
 <211> 2766
 <212> DNA
 <213> Homo sapiens

<400> 5019
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 2340
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